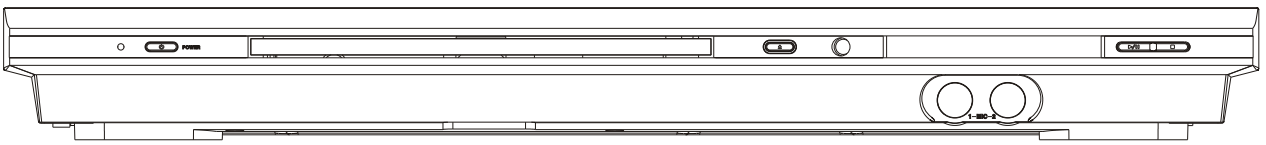
SERVICE MANUAL

DV514S



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1. SAFETY PREAUTIONS

1.1 GENERAL GUIDELINES

1. When servicing, observe the original lead dress. if a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

2. After servicing, see to it that all the protective devices such as insulation barrier, insulation papers shields are properly installed.

3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.PREVENTION OF ELECTRO STATIC DISCHARGE(ESD)TO ELECTROSTATICALLY SENSITIVE(ES)DEVICES

Some semiconductor(solid state)devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive(ES)Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge(ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially availabel discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices,place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as anti-static (ESD protected)can generate electrical charge sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

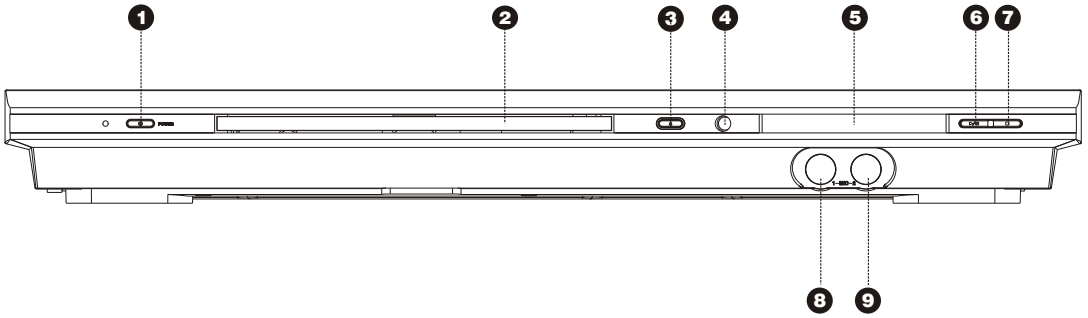
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity(ESD).

notice (1885x323x2 tiff)

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

Front Panel Illustration



1. POWER switch
2. Disc tray
3. OPEN/CLOSE button
4. IR SENSOR
5. Display window
6. PLAY/PAUSE button
7. STOP button
8. MIC 1 jack
9. MIC 2 jack

4.PREVENTION OF STATIC ELECTRICITY DISCHARGE

The laser diode in the traverse unit (optical pickup)may brake down due to static electricity of clothes or human body. Use due caution to electrostatic breakdown when servicing and handling the laser diode.

4.1.Grounding for electrostatic breakdown prevention

Some devices such as the DVD player use the optical pickup(laser diode)and the optical pickup will be damaged by static electricity in the working environment.Proceed servicing works under the working environment where grounding works is completed.

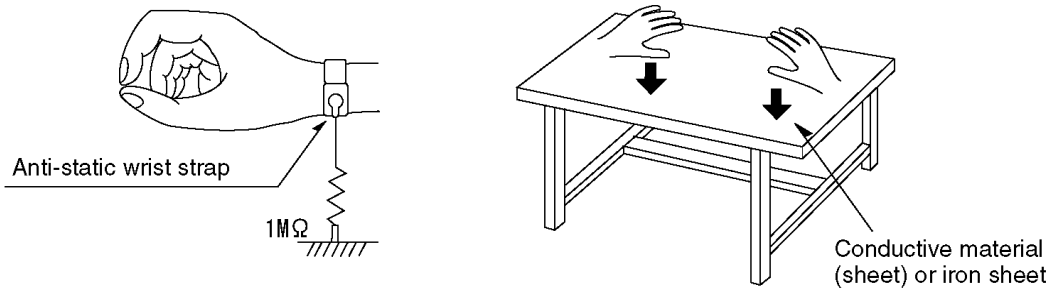
4.1.1. Worktable grounding

1. Put a conductive material(sheet)or iron sheet on the area where the optical pickup is placed,and ground the sheet.

4.1.2.Human body grounding

1 Use the anti-static wrist strap to discharge the static electricity from your body.

safety_3 (1577x409x2 tiff)



4.1.3.Handling of optical pickup

1. To keep the good quality of the optical pickup maintenance parts during transportation and before installation, the both ends of the laser diode are short-circuited.After replacing the parts with new ones, remove the short circuit according to the correct procedure. (See this Technical Guide).

2. Do not use a tester to check the laser diode for the optical pickup .Failure to do so willdamage the laser diode due to the power supply in the tester.

4.2. Handling precautions for Traverse Unit (Optical Pickup)

1. Do not give a considerable shock to the traverse unit(optical pickup)as it has an extremely high-precise structure.

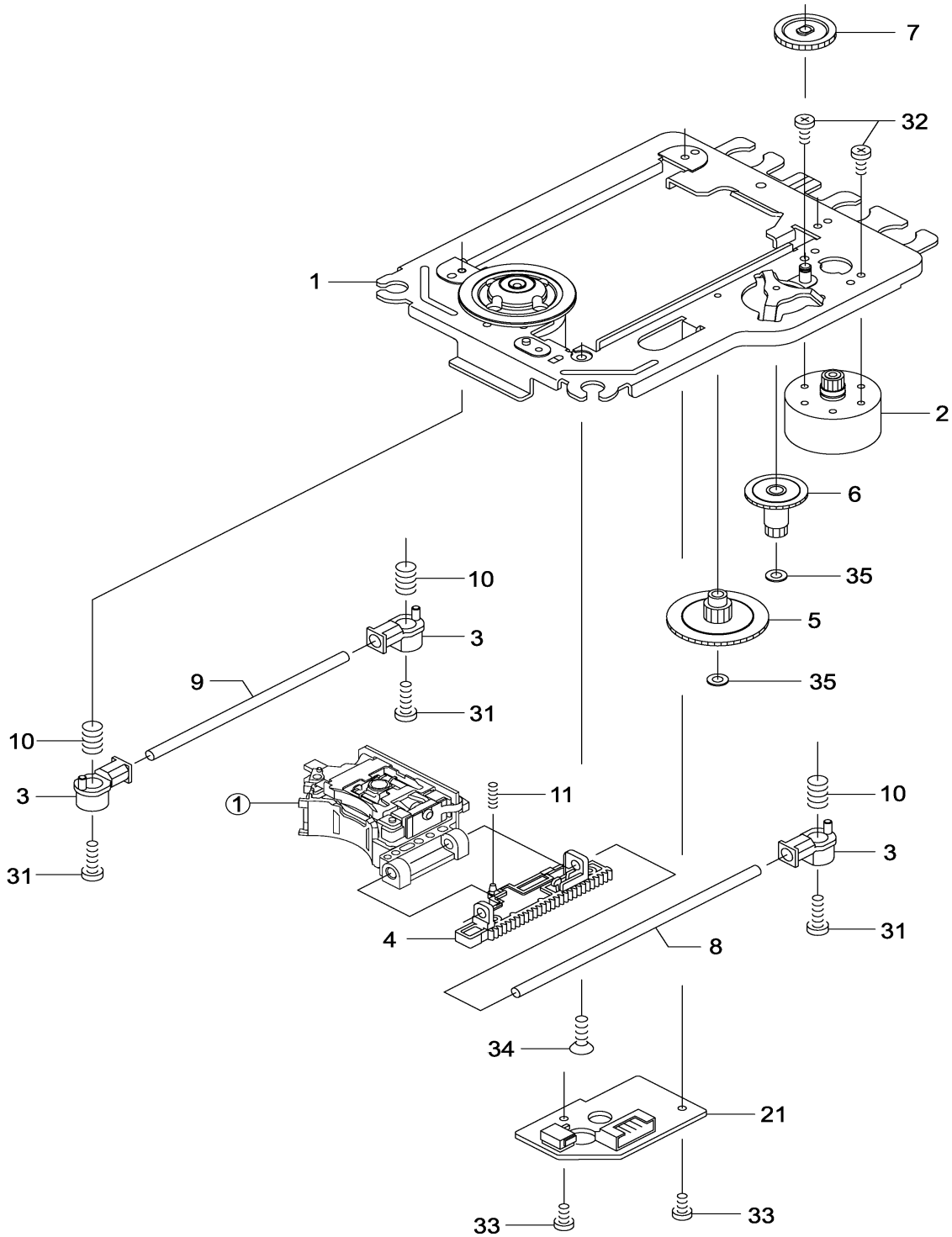
2. When replacing the optical pickup, install the flexible cable and cut is short land with a nipper. See the optical pickup replacement procedure in this Technical Guide. Before replacing the traverse unit, remove the short pin for preventingstatic electricity and install a new unit.Connect the connector as short times as possible.

3. The flexible cable may be cut off if an excessive force is applied to it.Use caution when handling the cable

4. The half-fixed resistor for laser power adjustment cannot be adjusted. Do not turn the resistor.

5. Assembling and disassembling the mechanism unit

5.1 Optical pickup Unit Explosed View and Part List



Pic (1)

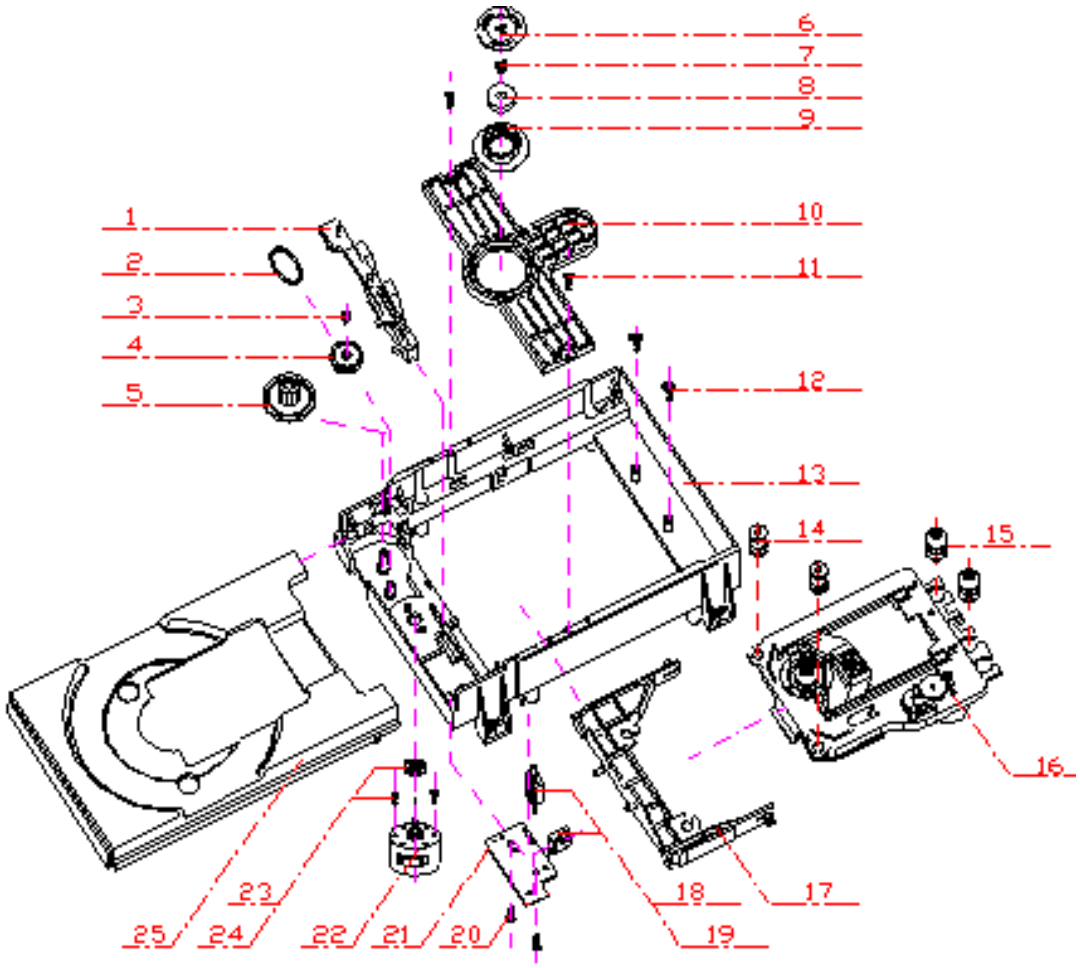
Materials to Pic (1)

No.	PARTS CODE	PARTS NAME	Q'ty
①	14692200	SF-HD60	1
1	1EA0311A06300	ASSY, CHASSIS, COMPLETE	1
2	1EA0M10A15500	ASSY, MOTOR, SLED	1
Or	1EA0M10A15501	ASSY, MOTOR, SLED	1
3	1EA2451A24700	HOLDER, SHAFT	3
4	1EA2511A29100	GEAR, RACK	1
5	1EA2511A29200	GEAR, DRIVE	1
6	1EA2511A29300	GEAR, MIDDLE, A	1
7	1EA2511A29400	GEAR, MIDDLE, B	1
8	1EA2744A03000	SHAFT, SLIDE	1
9	1EA2744A03100	SHAFT, SLIDE, SUB	1
10	1EA2812A15300	SPRING, COMP, TYOUSEI	3
11	1EA2812A15400	SPRING, COMP, RACK	1
21	1EA0B10B20100	ASSY, PWB	1
Or	1EA0B10B20200	ASSY, PWB	1
31	SEXEA25700---	SPECIAL SCREW BIN+-M2X11	3
32	SEXEA25900---	SPECIAL SCREW M1.7X2.2	2
33	SFBPN204R0SE-	SCR S-TPG PAN 2X4	2
34	SFSFN266R0SE-	SCR S-TPG FLT 2.6X6	1
35	SWXEA15400---	SPECIAL WASHER 1.8X4 X0.25	2

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

Note : This parts list is not for service parts supply.

5.2 Bracket Explosed View and Part List



Pic (2)

Materials to Pic(2)

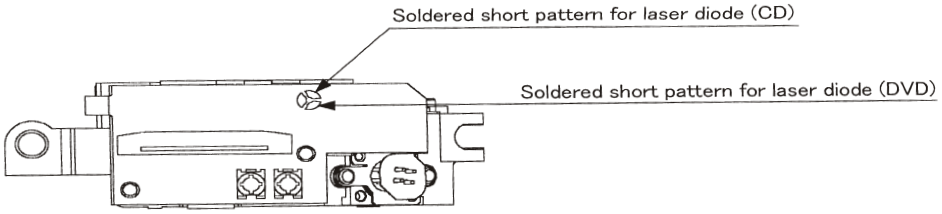
1.bracket
2.belt
3.screw
4.belt wheel
5.gearwheel
6.iron chip
7. Immobility mechanism equipment
8. Magnet
9. Platen
10. Bridge bracket
11. screw
12. screw
13. Big bracket
14. front silicon rubber
15. Back silicon rubber
16. Pick-up
17. Pick-up
18. switch
19. Five-pin flat plug
20. screw
21. PCB
22. motor
23. Motor wheel
24. screw
25.tray

Before going process with disassembly and installation, please carefully both peruse the chart and confirm the materials.

5.3 MISCELLANEOUS

5.3.1 Protection of the LD(Laser diode)

Short the parts of LD circuit pattern by soldering.



5.3.2 Cautions on assembly and adjustment

Make sure that the workbenches,jigs,tips,tips of soldering irons and measuring instruments are grounded,and that personnel wear wrist straps for ground.

Open the LD short lands quickly with a soldering iron after a circuit is connected.

Keep the power source of the pick-up protected from internal and external sources of electrical noise.

Refrain from operation and storage in atmospheres containing corrosive gases (such as H2S,SO2, NO2 and Cl2)or toxic gases or in locations containing substances(especially from the organic silicon,cyan, formalin and phenol groups)which emit toxic gases.It is particularly important to ensure that none of the above substances are present inside the unit.Otherwise,the motor may no longer run.

6.Electrical Confirmation

6.1. Video Output (Luminance Signal) Confirmation

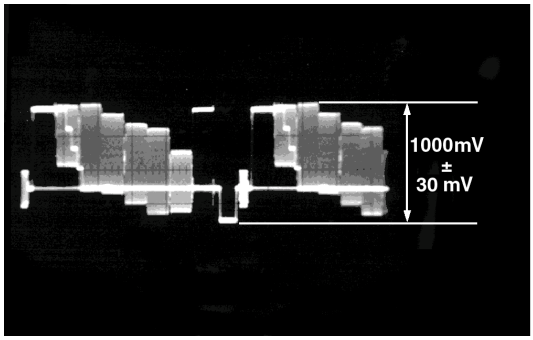
DO this confirmation after replacing a P.C.B.

Measurement point	Mode	Disc
Video output terminal	Color bar 75% PLAY(Title 46):DVDT-S15 PLAY(Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment,tools	Confirmation value	
200mV/dir,10 μ sec/dir	1000mVp-p±30mV	

Purpose:To maintain video signal output compatibility.

1.Connect the oscilloscope to the video output terminal and terminate at 75 ohms.

2.Confirm that luminance signal(Y+S)level is 1000mVp-p±30mV



6.2 Video Output(Chrominance Signal) Confirmation

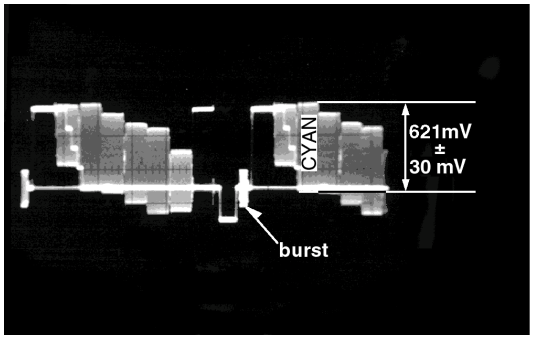
Do the confirmation after replacing P.C.B.

Measurement point	Mode	Disc
Video output terminal	Color bar 75% PLAY(Title 46):DVDT-S15 PLAY(Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment,tools	Confirmation value	
Screwdriver,Oscilloscope 200mV/dir,10 μ sec/dir	621mVp-p±30mV	

Purpose:To maintain video signal output compatibility.

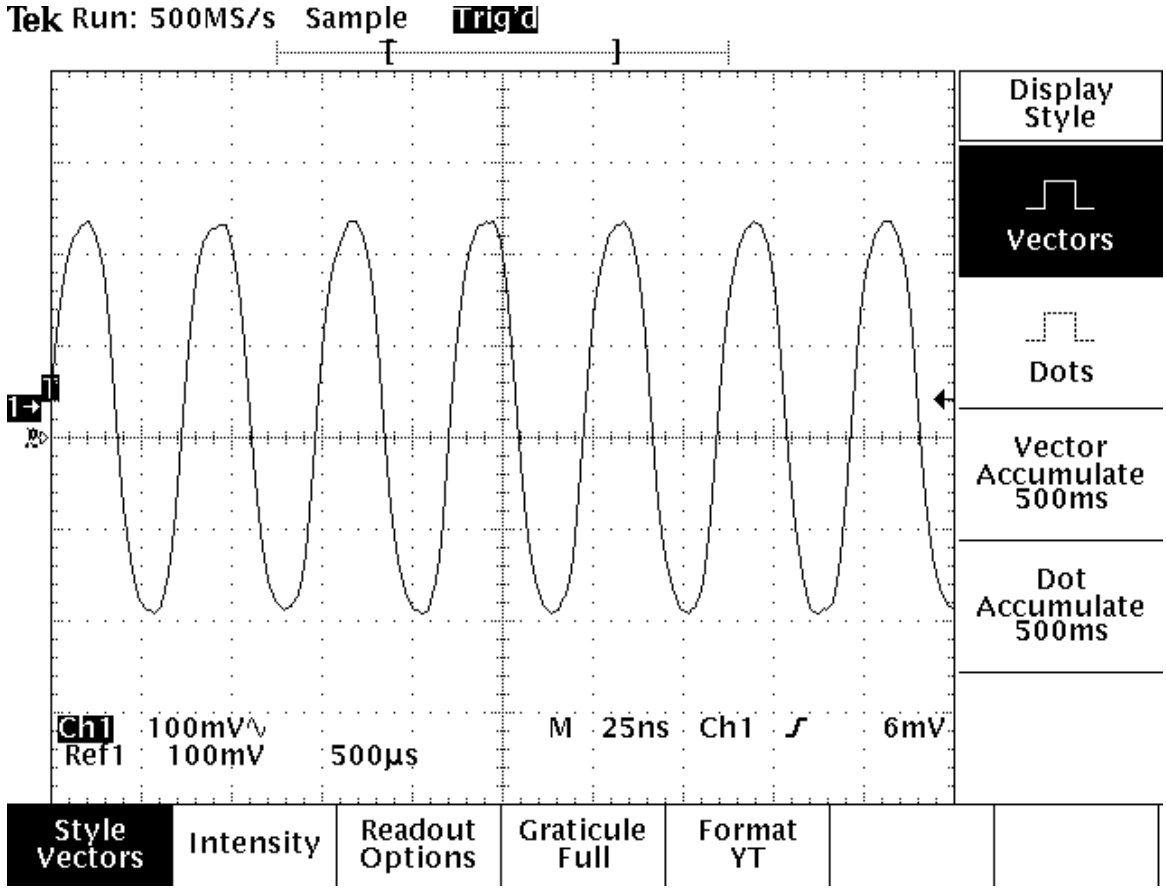
1.Connect the oscilloscope to the video output terminal and terminate at 75 ohme.

2.Confirm that the chrominance signal(C)level is 621 mVp-p±30mV

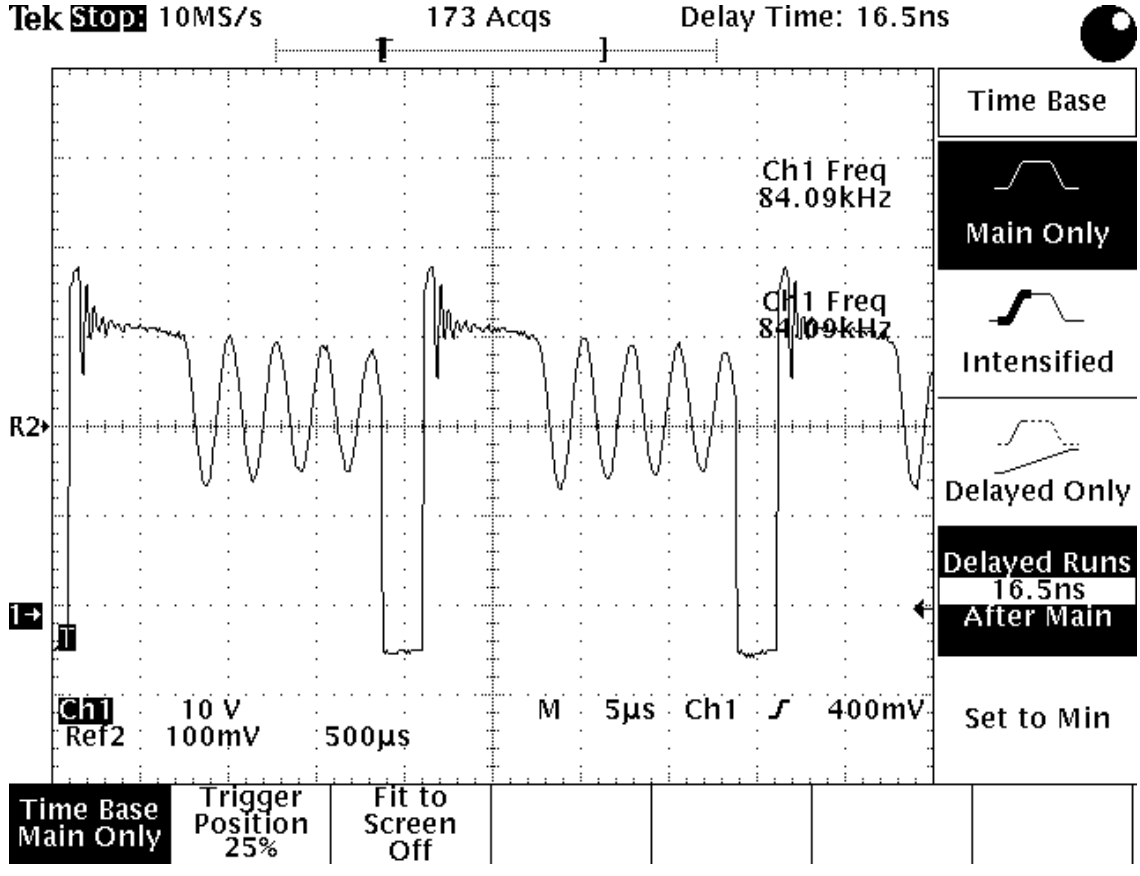


7.MPEG BOARD CHECK WAVEFORM

7.1 27MHz WAVEFORM



7.2 IC VIPER22 PIN.5 WAVEFORM DIAGRAM



16 Megabit (2 M x 8-Bit/1 M x 16-Bit) CMOS 3.0 Volt-only Boot Sector Flash Memory

DISTINCTIVE CHARACTERISTICS

- **Single power supply operation**
  - — Full voltage range: 2.7 to 3.6 volt read and write operations for battery-powered applications
  - — Regulated voltage range: 3.0 to 3.6 volt read and write operations and for compatibility with high performance 3.3 volt microprocessors
- **Manufactured on 0.23 µm process technology**
  - — Fully compatible with 0.32 µm Am29LV160B device
- **High performance**
  - — Access times as fast as 70 ns
- **Ultra low power consumption (typical values at 5 MHz)**
  - — 200 nA Automatic Sleep mode current
  - — 200 nA standby mode current
  - — 9 mA read current
  - — 20 mA program/erase current
- **Flexible sector architecture**
  - — One 16 Kbyte, two 8 Kbyte, one 32 Kbyte, and thirty-one 64 Kbyte sectors (byte mode)
  - — One 8 Kword, two 4 Kword, one 16 Kword, and thirty-one 32 Kword sectors (word mode)
  - — Supports full chip erase
  - — Sector Protection features:

    A hardware method of locking a sector to prevent any program or erase operations within that sector

    Sectors can be locked in-system or via programming equipment

    Temporary Sector Unprotect feature allows code changes in previously locked sectors
- **Unlock Bypass Program Command**
  - — Reduces overall programming time when issuing multiple program command sequences
- **Top or bottom boot block configurations available**
- **Embedded Algorithms**
  - — Embedded Erase algorithm automatically preprograms and erases the entire chip or any combination of designated sectors
  - — Embedded Program algorithm automatically writes and verifies data at specified addresses
- **Minimum 1,000,000 write cycle guarantee per sector**
- **20-year data retention at 125°C**
  - — Reliable operation for the life of the system
- **Package option**
  - — 48-ball FBGA
  - — 48-pin TSOP
  - — 44-pin SO
- **CFI (Common Flash Interface) compliant**
  - — Provides device-specific information to the system, allowing host software to easily reconfigure for different Flash devices
- **Compatibility with JEDEC standards**
  - — Pinout and software compatible with single-power supply Flash
  - — Superior inadvertent write protection
- **Data# Polling and toggle bits**
  - — Provides a software method of detecting program or erase operation completion
- **Ready/Busy# pin (RY/BY#)**
  - — Provides a hardware method of detecting program or erase cycle completion (not available on 44-pin SO)
- **Erase Suspend/Erase Resume**
  - — Suspends an erase operation to read data from, or program data to, a sector that is not being erased, then resumes the erase operation
- **Hardware reset pin (RESET#)**
  - — Hardware method to reset the device to reading array data

This Data Sheet states AMD's current technical specifications regarding the Product described herein. This Data Sheet may be revised by subsequent versions or modifications due to changes in technical specifications.

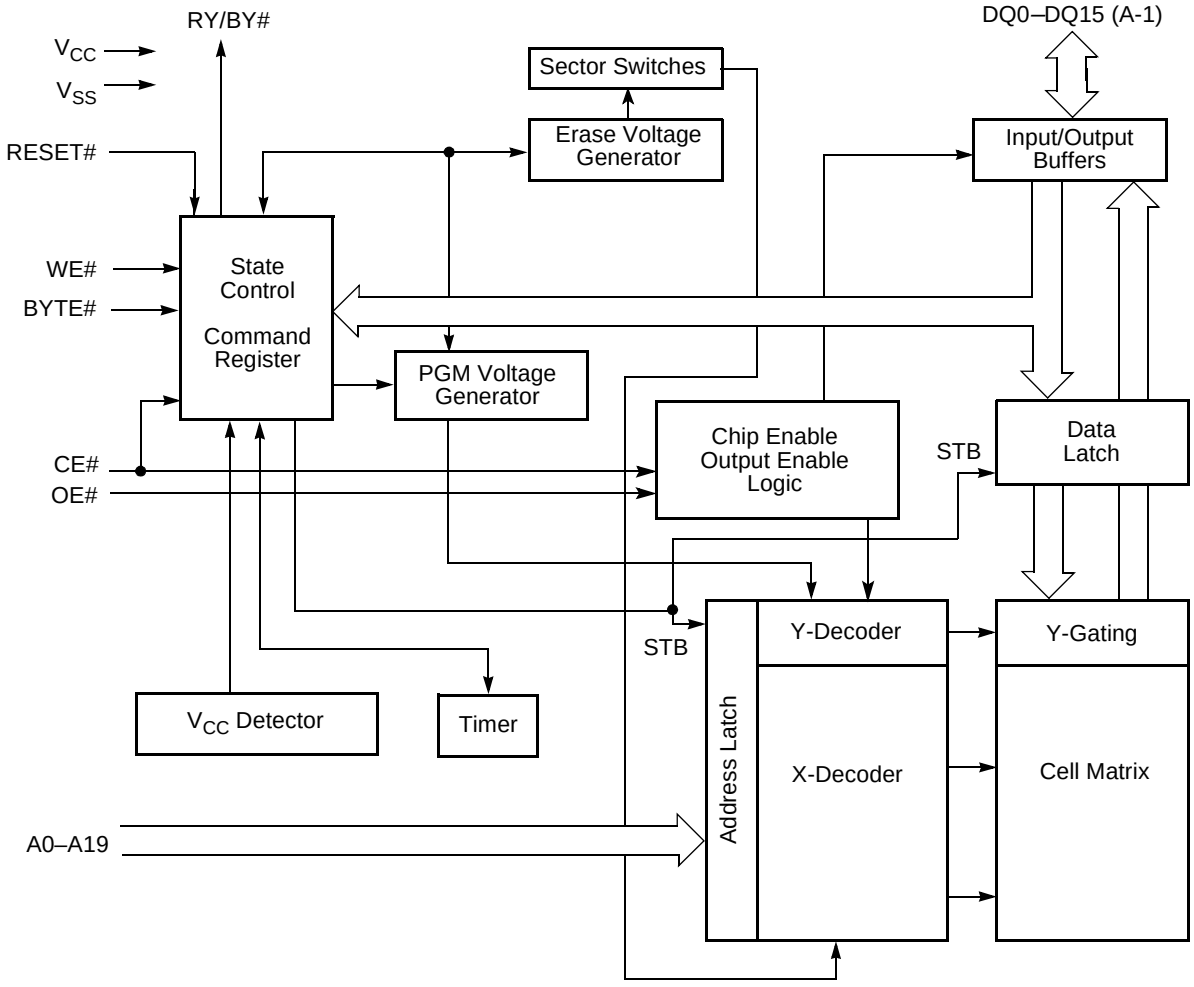
Publication# **22358** Rev: **B** Amendment/**+3**
Issue Date: **November 10, 2000**

PRODUCT SELECTOR GUIDE

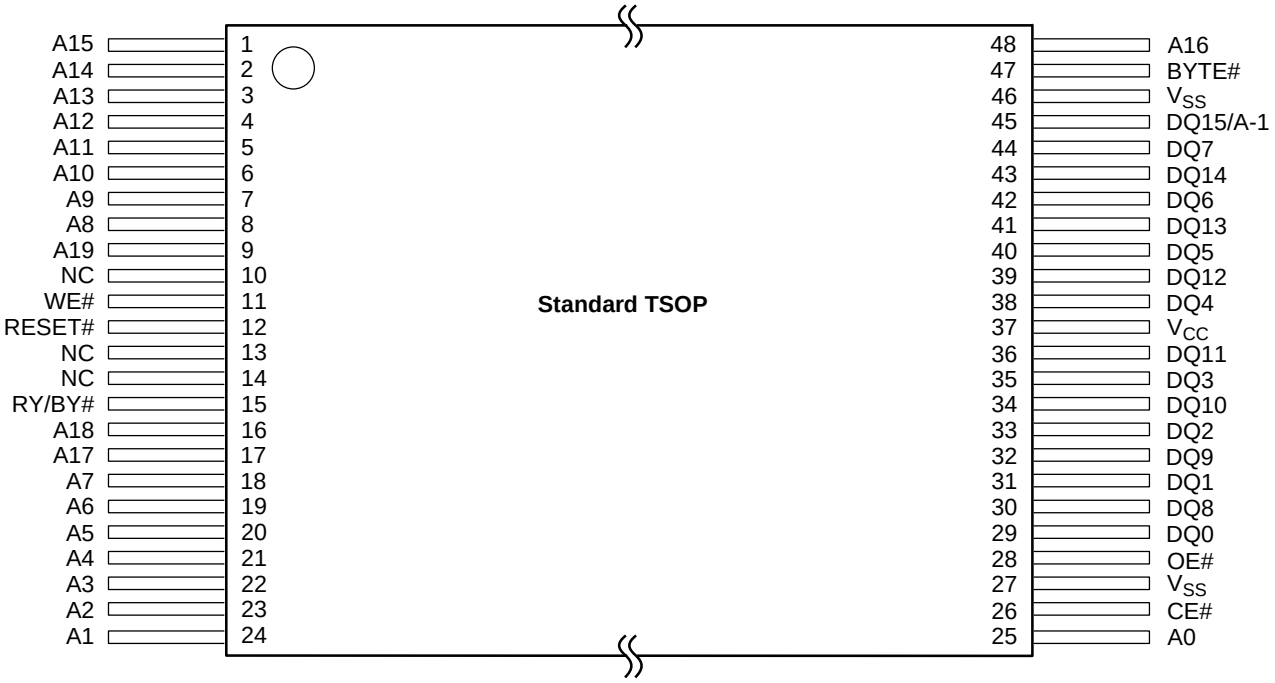
Family Part Number		Am29LV160D		
Speed Option	Voltage Range: V_{CC} = 2.7–3.6 V	**-70**	**-90**	**-120**
Max access time, ns (t_{ACC})		70	90	120
Max CE# access time, ns (t_{CE})		70	90	120
Max OE# access time, ns (t_{OE})		30	35	50

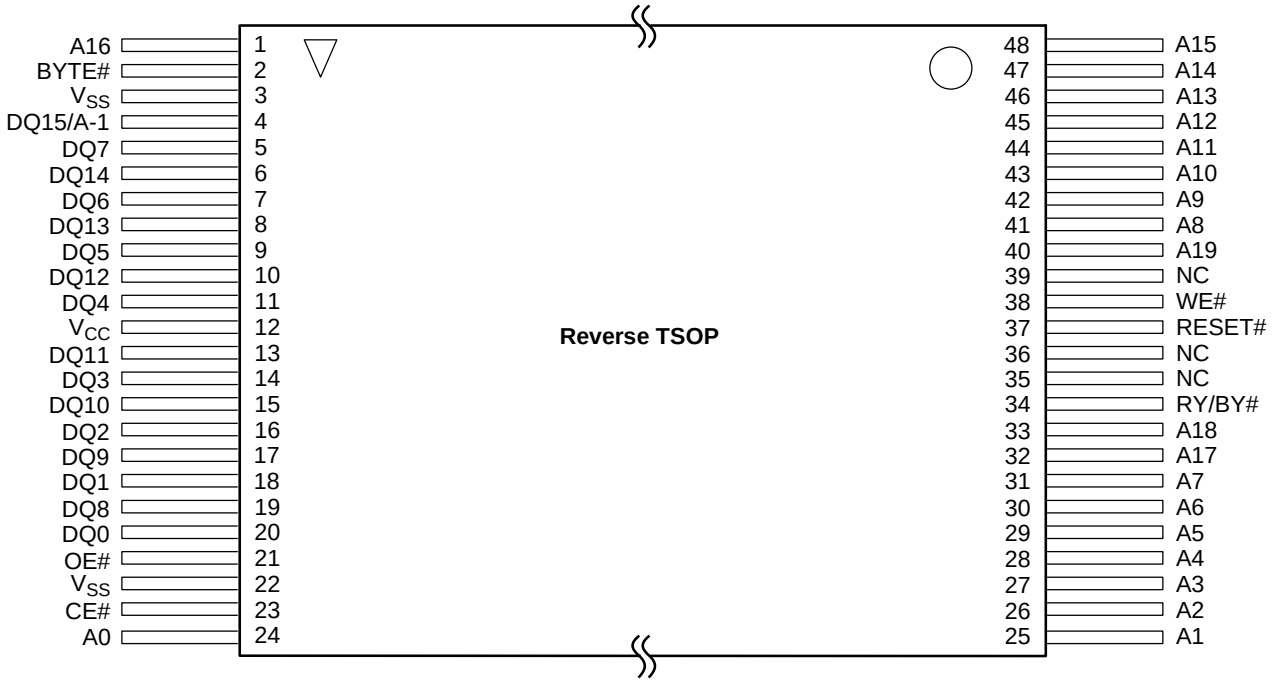
Note: *See "AC Characteristics" for full specifications.*

BLOCK DIAGRAM

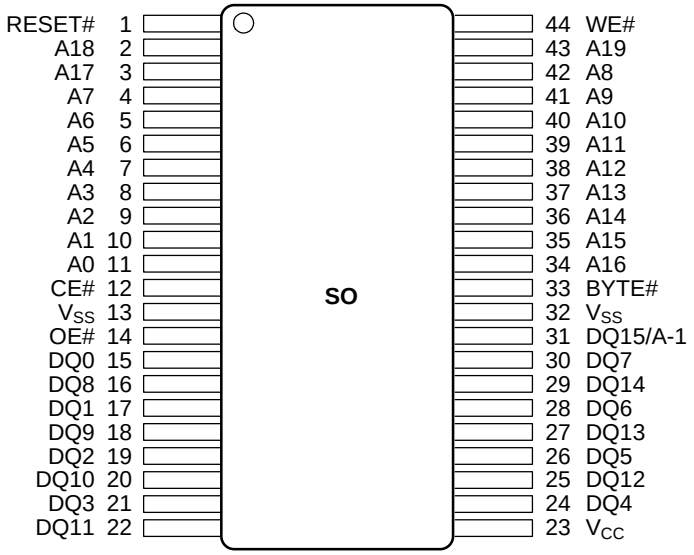


CONNECTION DIAGRAMS





CONNECTION DIAGRAMS



FBGA
Top View, Balls Facing Down

A6	B6	C6	D6	E6	F6	G6	H6
A13	A12	A14	A15	A16	BYTE#	DQ15/A-1	V_{SS}
A5	B5	C5	D5	E5	F5	G5	H5
A9	A8	A10	A11	DQ7	DQ14	DQ13	DQ6
A4	B4	C4	D4	E4	F4	G4	H4
WE#	RESET#	NC	A19	DQ5	DQ12	V_{CC}	DQ4
A3	B3	C3	D3	E3	F3	G3	H3
RY/BY#	NC	A18	NC	DQ2	DQ10	DQ11	DQ3
A2	B2	C2	D2	E2	F2	G2	H2
A7	A17	A6	A5	DQ0	DQ8	DQ9	DQ1
A1	B1	C1	D1	E1	F1	G1	H1
A3	A4	A2	A1	A0	CE#	OE#	V_{SS}

Special Handling Instructions

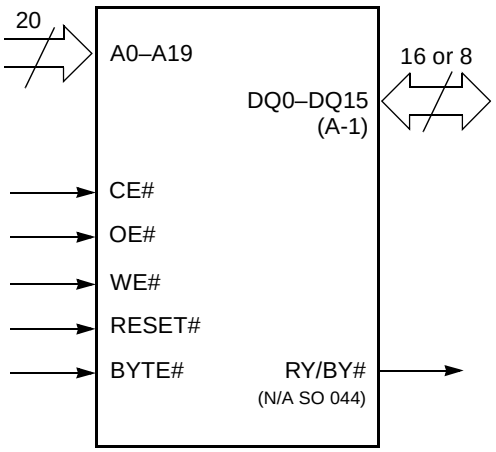
Special handling is required for Flash Memory products in FBGA packages.

Flash memory devices in FBGA packages may be damaged if exposed to ultrasonic cleaning methods. The package and/or data integrity may be compromised if the package body is exposed to temperatures above 150°C for prolonged periods of time.

PIN CONFIGURATION

A0–A19	=	20 addresses
DQ0–DQ14	=	15 data inputs/outputs
DQ15/A-1	=	DQ15 (data input/output, word mode), A-1 (LSB address input, byte mode)
BYTE#	=	Selects 8-bit or 16-bit mode
CE#	=	Chip enable
OE#	=	Output enable
WE#	=	Write enable
RESET#	=	Hardware reset pin
RY/BY#	=	Ready/Busy output (N/A SO 044)
V_{CC}	=	3.0 volt-only single power supply (see Product Selector Guide for speed options and voltage supply tolerances)
V_{SS}	=	Device ground
NC	=	Pin not connected internally

LOGIC SYMBOL



8.1 HY57V641620HG

DESCRIPTION

The Hyundai HY57V641620HG is a 67,108,864-bit CMOS Synchronous DRAM, ideally suited for the main memory applications which require large memory density and high bandwidth. HY57V641620HG is organized as 4banks of 1,048,576x16.

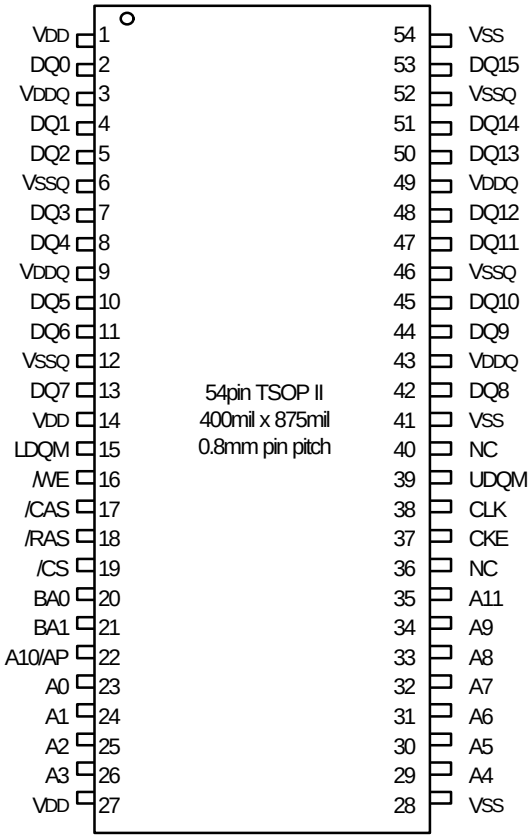
HY57V641620HG is offering fully synchronous operation referenced to a positive edge of the clock. All inputs and outputs are synchronized with the rising edge of the clock input. The data paths are internally pipelined to achieve very high bandwidth. All input and output voltage levels are compatible with LVTTL.

Programmable options include the length of pipeline (Read latency of 2 or 3), the number of consecutive read or write cycles initiated by a single control command (Burst length of 1,2,4,8 or Full page), and the burst count sequence(sequential or interleave). A burst of read or write cycles in progress can be terminated by a burst terminate command or can be interrupted and replaced by a new burst read or write command on any cycle. (This pipelined design is not restricted by a `2N` rule.)

FEATURES

- Single 3.3±0.3V power supply Note)
- All device pins are compatible with LVTTL interface
- JEDEC standard 400mil 54pin TSOP-II with 0.8mm of pin pitch
- All inputs and outputs referenced to positive edge of system clock
- Data mask function by UDQM or LDQM
- Internal four banks operation
- Auto refresh and self refresh
- 4096 refresh cycles / 64ms
- Programmable Burst Length and Burst Type
  - 1, 2, 4, 8 or Full page for Sequential Burst
  - 1, 2, 4 or 8 for Interleave Burst
- Programmable $\overline{\text{CAS}}$ Latency ; 2, 3 Clocks

PIN CONFIGURATION

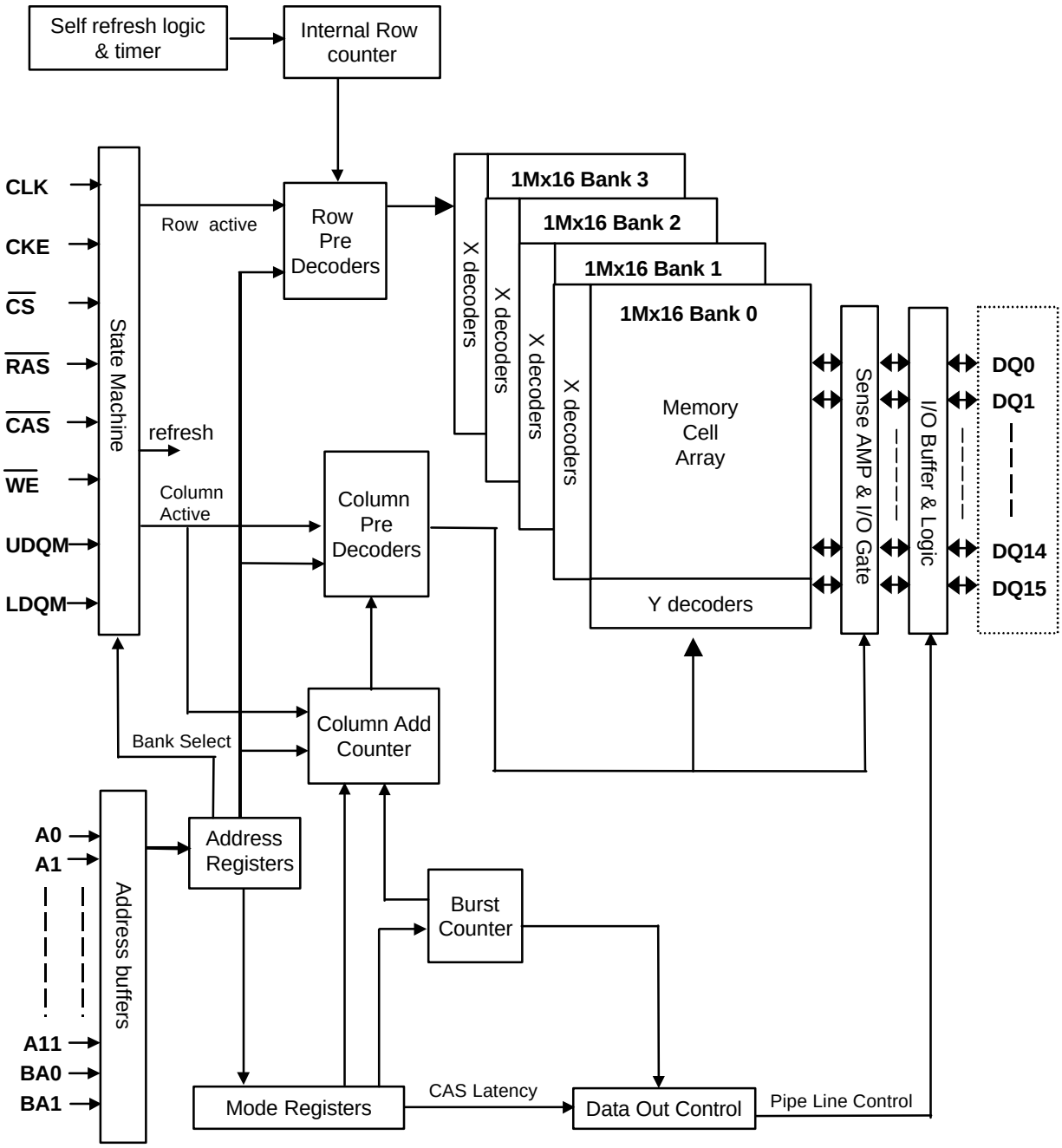


PIN DESCRIPTION

PIN	PIN NAME	DESCRIPTION
CLK	Clock	The system clock input. All other inputs are registered to the SDRAM on the rising edge of CLK
CKE	Clock Enable	Controls internal clock signal and when deactivated, the SDRAM will be one of the states among power down, suspend or self refresh
$\overline{CS}$	Chip Select	Enables or disables all inputs except CLK, CKE and DQM
BA0,BA1	Bank Address	Selects bank to be activated during $\overline{RAS}$ activity Selects bank to be read/written during $\overline{CAS}$ activity
A0 ~ A11	Address	Row Address : RA0 ~ RA11, Column Address : CA0 ~ CA7 Auto-precharge flag : A10
$\overline{RAS}$, $\overline{CAS}$, $\overline{WE}$	Row Address Strobe, Column Address Strobe, Write Enable	$\overline{RAS}$, $\overline{CAS}$ and $\overline{WE}$ define the operation Refer function truth table for details
LDQM, UDQM	Data Input/Output Mask	Controls output buffers in read mode and masks input data in write mode
DQ0 ~ DQ15	Data Input/Output	Multiplexed data input / output pin
VDD/VSS	Power Supply/Ground	Power supply for internal circuits and input buffers
VDDQ/VSSQ	Data Output Power/Ground	Power supply for output buffers
NC	No Connection	No connection

FUNCTIONAL BLOCK DIAGRAM

1Mbit x 4banks x 16 I/O Synchronous DRAM



MT1389

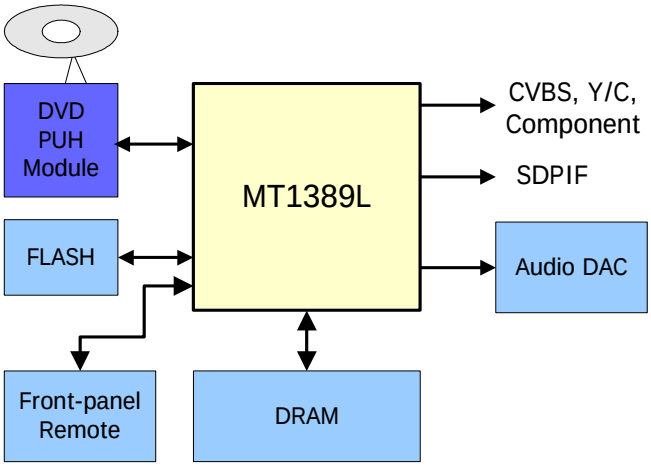
Progressive-Scan DVD Player SOC

Specifications are subject to change without notice

MediaTek MT1389 is a DVD player system-on-chip (SOC) which incorporates advanced features like high quality TV encoder and state-of-art de-interlace processing. The MT1389 enables consumer electronics manufacturers to build high quality, cost-effective DVD players, portable DVD players or any other home entertainment audio/video devices.

Based on MediaTek's world-leading DVD player SOC architecture, the MT1389 is the 3rd generation of the DVD player SOC. It integrates the MediaTek 2nd generation front-end analog RF amplifier and the Servo/MPEG AV decoder.

The progressive scan of the MT1389 utilized a proprietary advanced motion-adaptive de-interlace algorithm to achieve the best movie/video playback. It can easily detect 3:2/2:2 pull down source and restore the correct original pictures. It also supports a patent-pending edge-preserving algorithm to remove the saw-tooth effect.



DVD Player System Diagram Using MT1389

Key Features

- RF/Servo/MPEG Integration
- High Performance Audio Processor
- Motion-Adaptive, Edge-Preserving De-interlace
- 108MHz/12-bit, 6 CH TV Encoder

Applications

- Standard DVD Players
- Portable DVD Players

General Feature List

- Super Integration DVD player single chip
  - High performance analog RF amplifier
  - Servo controller and data channel processing
  - MPEG-1/MPEG-2/JPEG video
  - Dolby AC-3/DTS/DVD-Audio
  - Unified memory architecture
  - Versatile video scaling & quality enhancement
  - OSD & Sub-picture
  - 2-D graphic engine
  - Built-in clock generator
  - Built-in high quality TV encoder
  - Built-in progressive video processor
  - Audio effect post-processor
  - Audio input port

- High Performance Analog RF Amplifier
  - Programmable fc
  - Dual automatic laser power control
  - Defect and blank detection
  - RF level signal generator

- Speed Performance on Servo/Channel Decoding
  - DVD-ROM up to 4XS
  - CD-ROM up to 24XS

- Channel Data Processor
  - Digital data slicer for small jitter capability
  - Built-in high performance data PLL for channel data demodulation
  - EFM/EFM+ data demodulation
  - Enhanced channel data frame sync protection & DVD-ROM sector sync protection

- Servo Control and Spindle Motor Control
  - Programmable frequency error gain and phase error gain of spindle PLL to control spindle motor on CLV and CAV mode
  - Built-in ADCs and DACs for digital servo control
  - Provide 2 general PWM
  - Tray control can be PWM output or digital output

- Embedded Micro controller
  - Built-in 8032 micro controller
  - Built-in internal 373 and 8-bit programmable lower address port
  - 1024-bytes on-chip RAM
  - Up to 4M bytes FLASH-programming interface
  - Supports 5/3.3-Volt. FLASH interface
  - Supports power-down mode
  - Supports additional serial port

- DVD-ROM/CD-ROM Decoding Logic
  - High-speed ECC logic capable of correcting one error per each P-codeword or Q-codeword
  - Automatic sector Mode and Form detection
  - Automatic sector Header verification
  - Decoder Error Notification Interrupt that signals various decoder errors
  - Provide error correction acceleration

- Buffer Memory Controller
  - Supports 16Mb/32Mb/64Mb/128Mb SDRAM
  - Supports 16-bit SDRAM data bus
  - Provide the self-refresh mode SDRAM
  - Block-based sector addressing
  - Support 3.3 Volt. DRAM Interface

- Video Decode
  - Decodes MPEG1 video and MPEG2 main level, main profile video (720/480 and 720x576)
  - Smooth digest view function with I, P and B picture decoding
  - Baseline, extended-sequential and progressive JPEG image decoding
  - Support CD-G titles

- Video/OSD/SPU/HLI Processor
  - Arbitrary ratio vertical/horizontal scaling of video, from 0.25X to 256X
  - 65535/256/16/4/2-color bitmap format OSD,
  - 256/16 color RLC format OSD
  - Automatic scrolling of OSD image
  - Slide show transition as DVD-Audio Specification

- 2-D Graphic Engine
  - Support decode Text and Bitmap
  - Support line, rectangle and gradient fill
  - Support bitblt
  - Chroma key copy operation
  - Clip mask

- Audio Effect Processing
  - Dolby Digital (AC-3)/EX decoding
  - DTS/DTS-ES decoding
  - MLP decoding for DVD-Audio
  - MPEG-1 layer 1/layer 2 audio decoding
  - MPEG-2 layer1/layer2 2-channel audio
  - High Definition Compatible Digital (HDCD)
  - Windows Media Audio (WMA)
  - Advanced Audio Coding (AAC)
  - Dolby ProLogic II
  - Concurrent multi-channel and downmix out
  - IEC 60958/61937 output
    - PCM / bit stream / mute mode
    - Custom IEC latency up to 2 frames
  - Pink noise and white noise generator
  - Karaoke functions
    - Microphone echo
    - Microphone tone control
    - Vocal mute/vocal assistant
    - Key shift up to +/- 8 keys
    - Chorus/Flanger/Harmony/Reverb
  - Channel equalizer
  - 3D surround processing include virtual surround and speaker separation

- TV Encoder
  - Six 108MHz/12bit DACs
  - Support NTSC, PAL-BDGHINM, PAL-60
  - Support 525p, 625p progressive TV format
  - Automatically turn off unconnected channels
  - Support PC monitor (VGA)
  - Support Macrovision 7.1 L1, Macrovision 525P and 625P
  - CGMS-A/WSS
  - Closed Caption

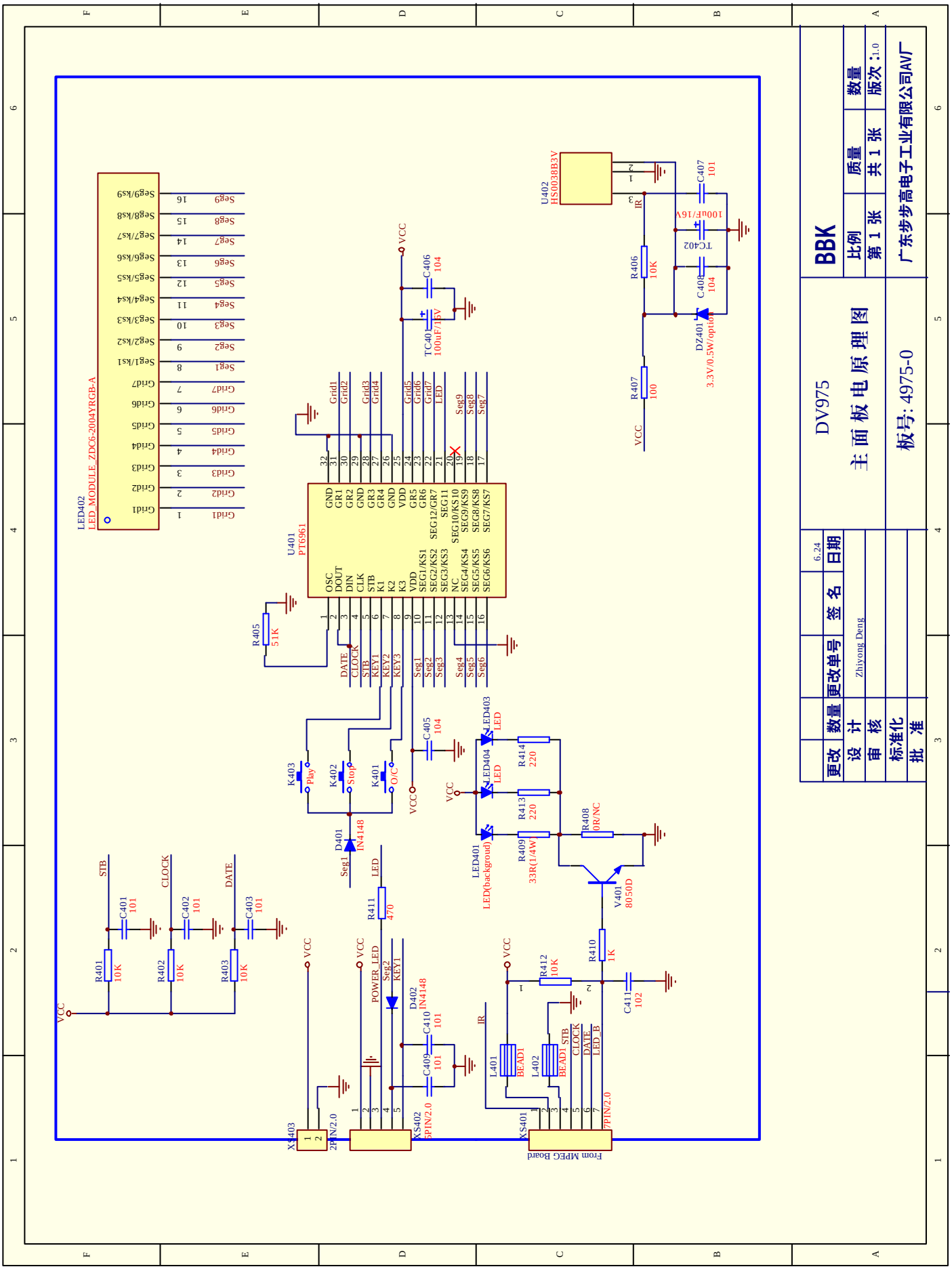
- Progressive Output
  - Automatic detect film or video source
  - 3:2 pull down source detection
  - Advanced Motion adaptive de-interlace
  - Edge Preserving
  - Minimum external memory requirement

- Audio Input
  - Line-in/SPDIF-in for versatile audio processing

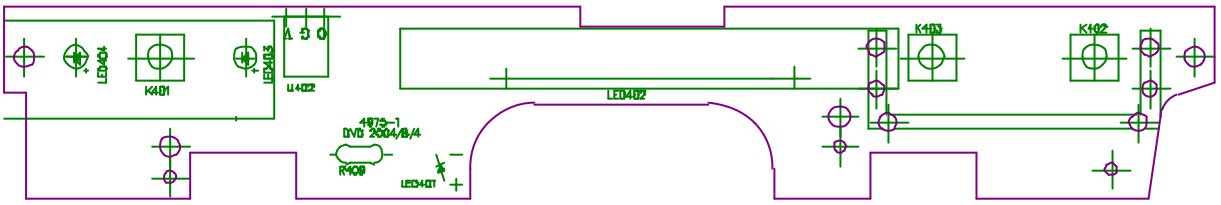
- Outline
  - 256-pin LQFP package
  - 3.3/1.8-Volt. Dual operating voltages

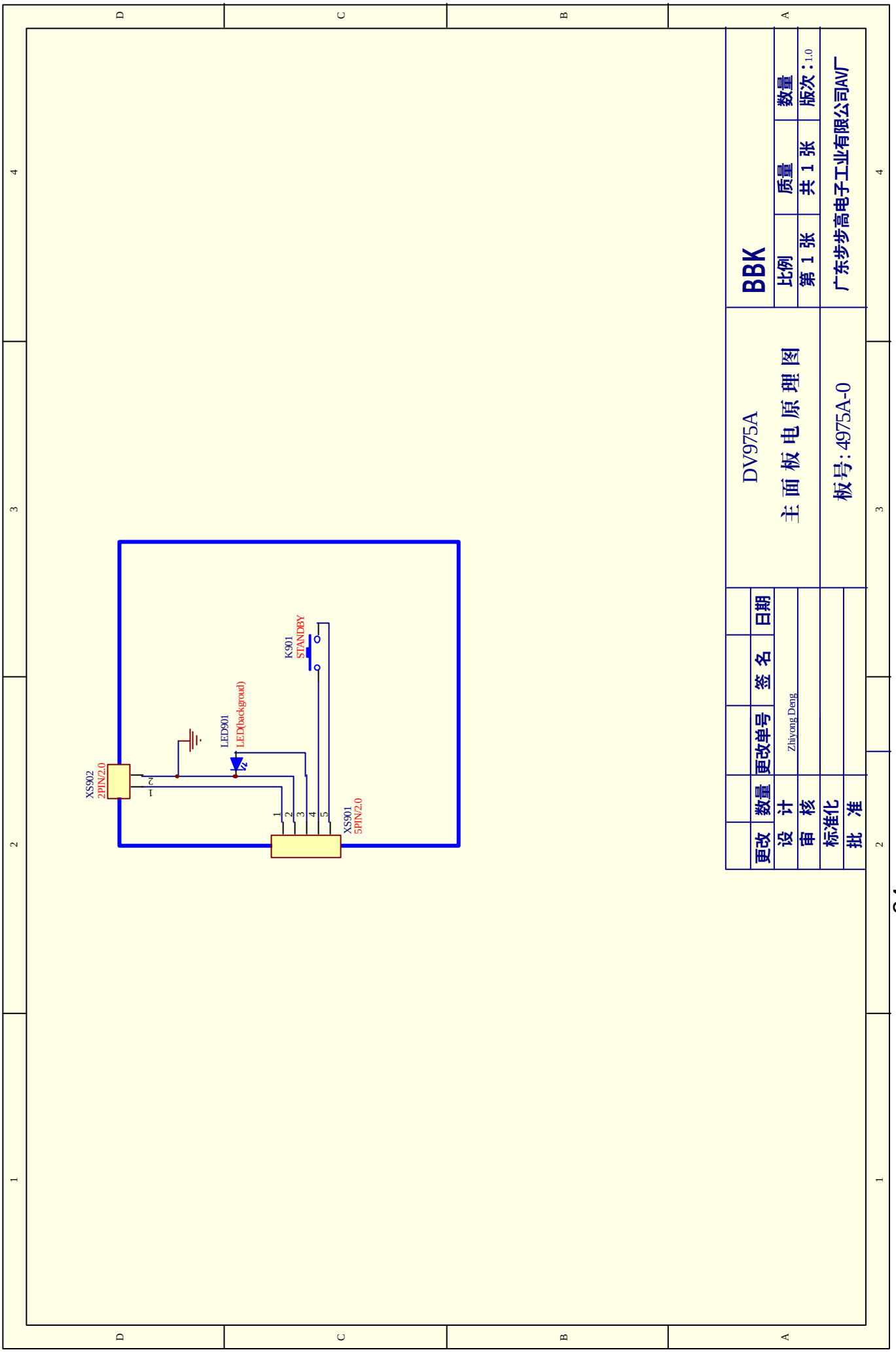
9.0 SCHEMATIC & PCB WIRING DIAGRAM

FRONT SCHEMATIC DIAGRAM

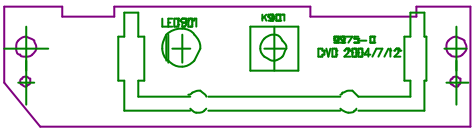


FRONT SCHEMATIC DIAGRAM

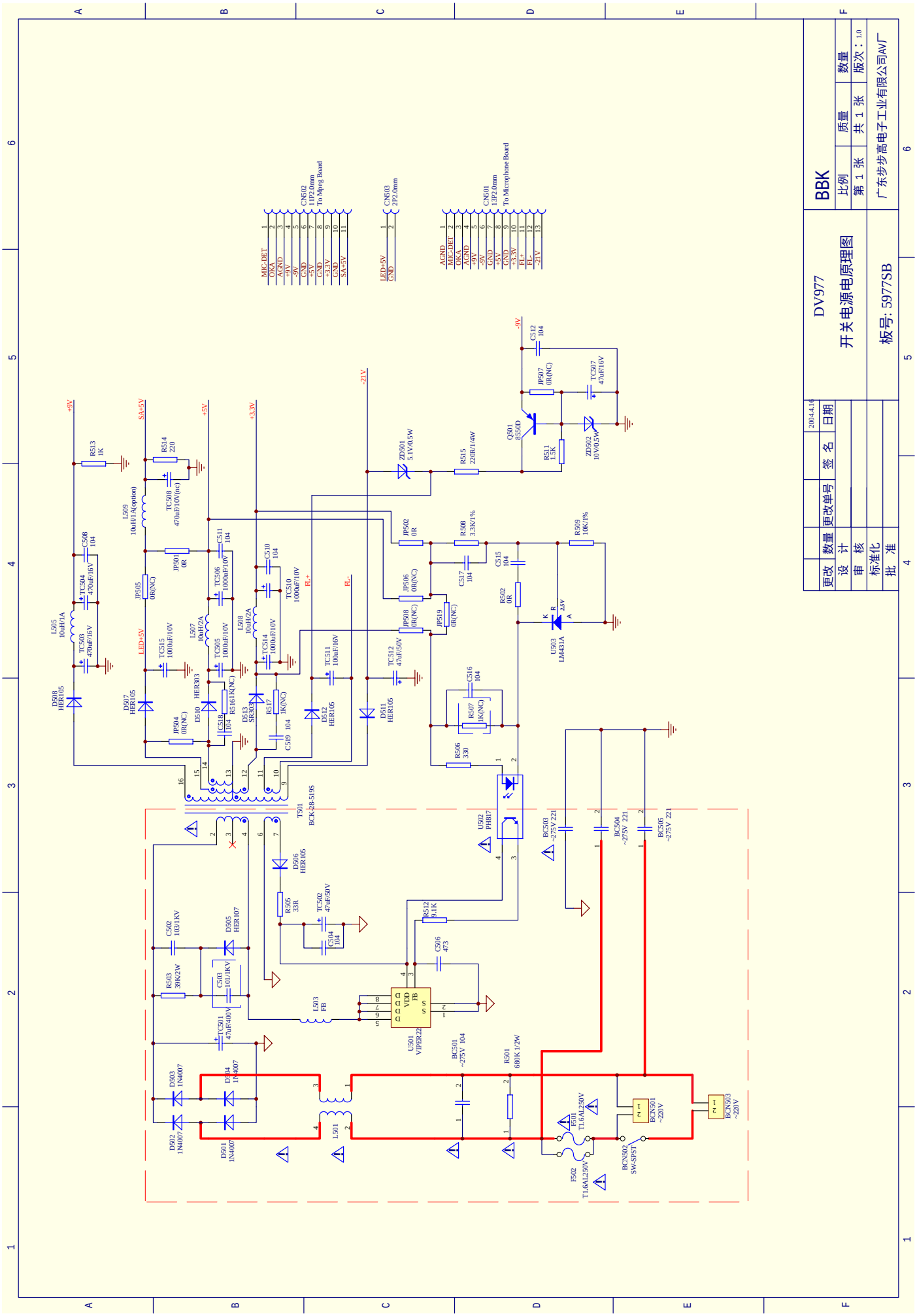



XS902
2PIN/2.0
LED901
LED(backgroud)
K901
STANDBY
XS901
5PIN/2.0
1
2
3
4
5
DV975A
主 面 板 电 原 理 图
BBK
比例
第 1 张
质量
共 1 张
数量
版次：1.0
广东步步高电子工业有限公司AV厂
板号：4975A-0
更改
数量
更改单号
签 名
日期
设 计
Zhiyong Deng
审 核
标准化
批 准

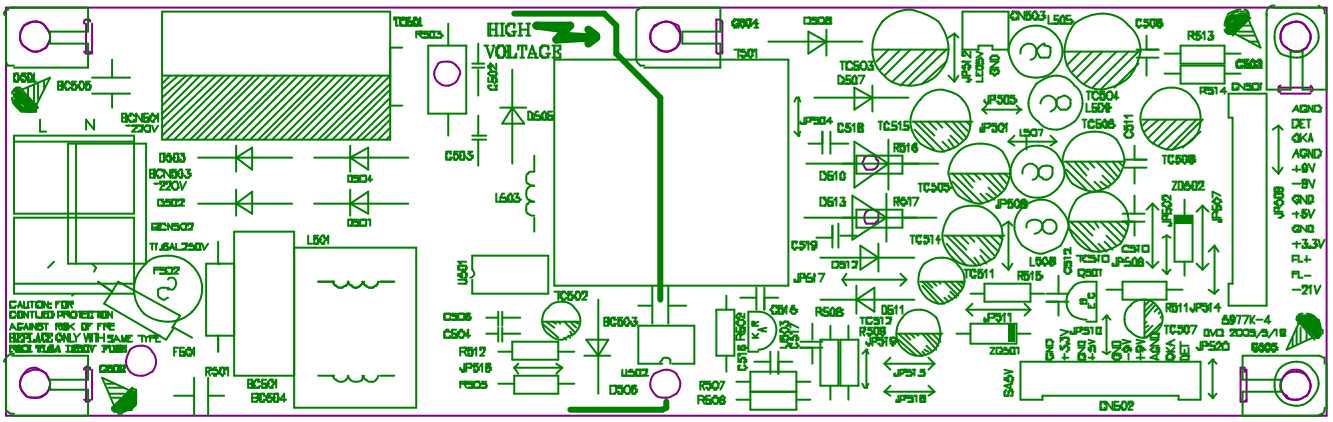
SUBSIDIART BOARD SCHEMATIC DIAGRAM

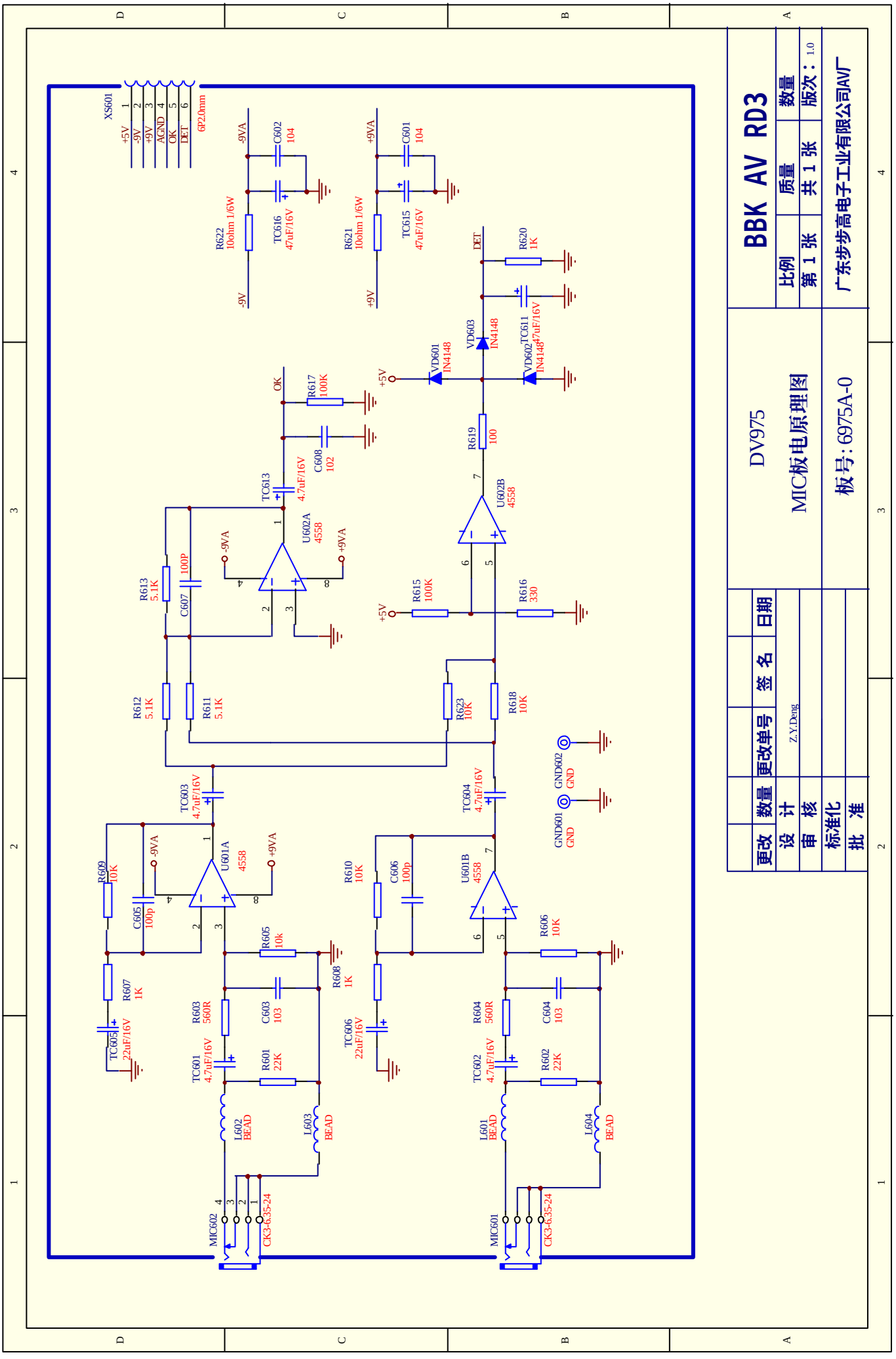


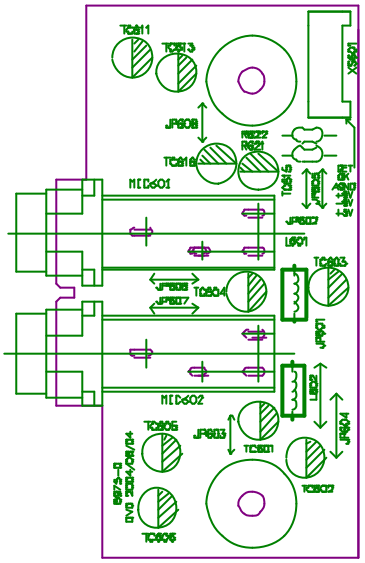
POWER BOARD SCHEMATIC DIAGRAM



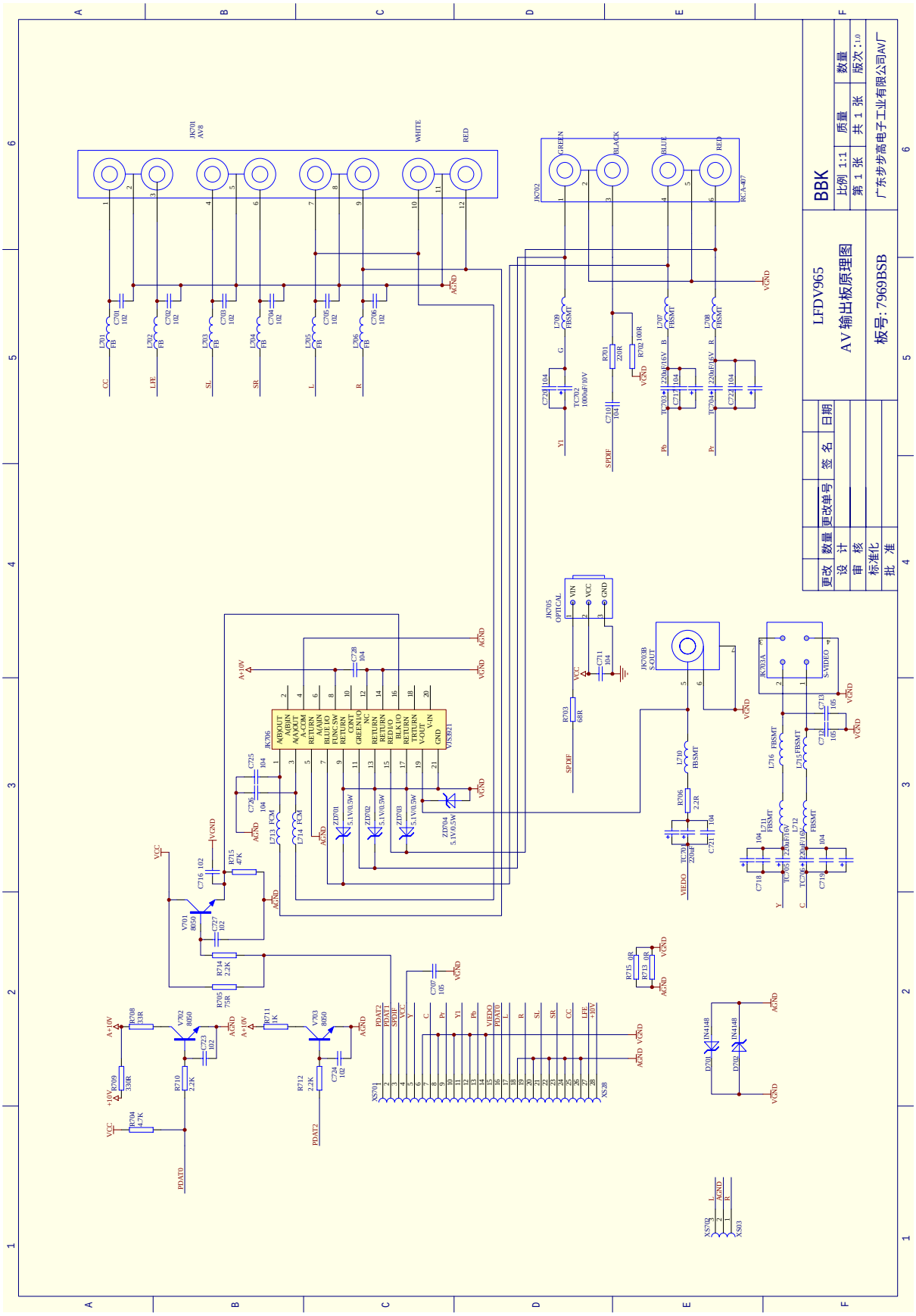
POWER BOARD SCHEMATIC DIAGRAM



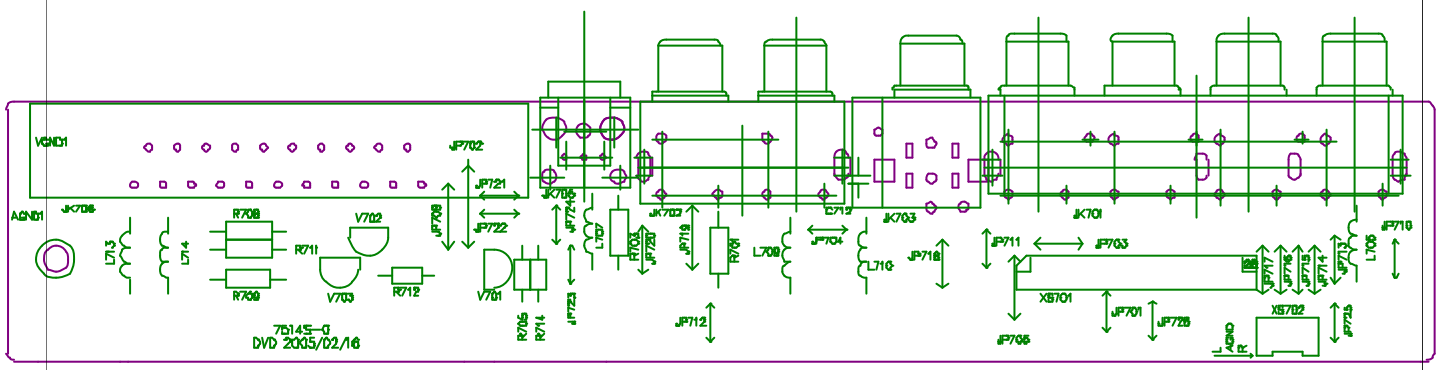

BBK AV RD3
DV975
MIC板电原理图
板号: 6975A-0
广东步步高电子工业有限公司AV厂
比例 第 1 张
质量 共 1 张
数量
版次: 1.0
更改 数量 更改单号 签 名 日期
设 计 Z.Y.Deng
审 核
标准化
批 准
XS601
+5V -9V +9V AGND OK DET
6P2.0mm
MIC602
MIC601
CK3-6.35-24
U601A 4558
U601B 4558
U602A 4558
U602B 4558
VD601 IN4148
VD602 IN4148
VD603 IN4148
GND601 GND
GND602 GND

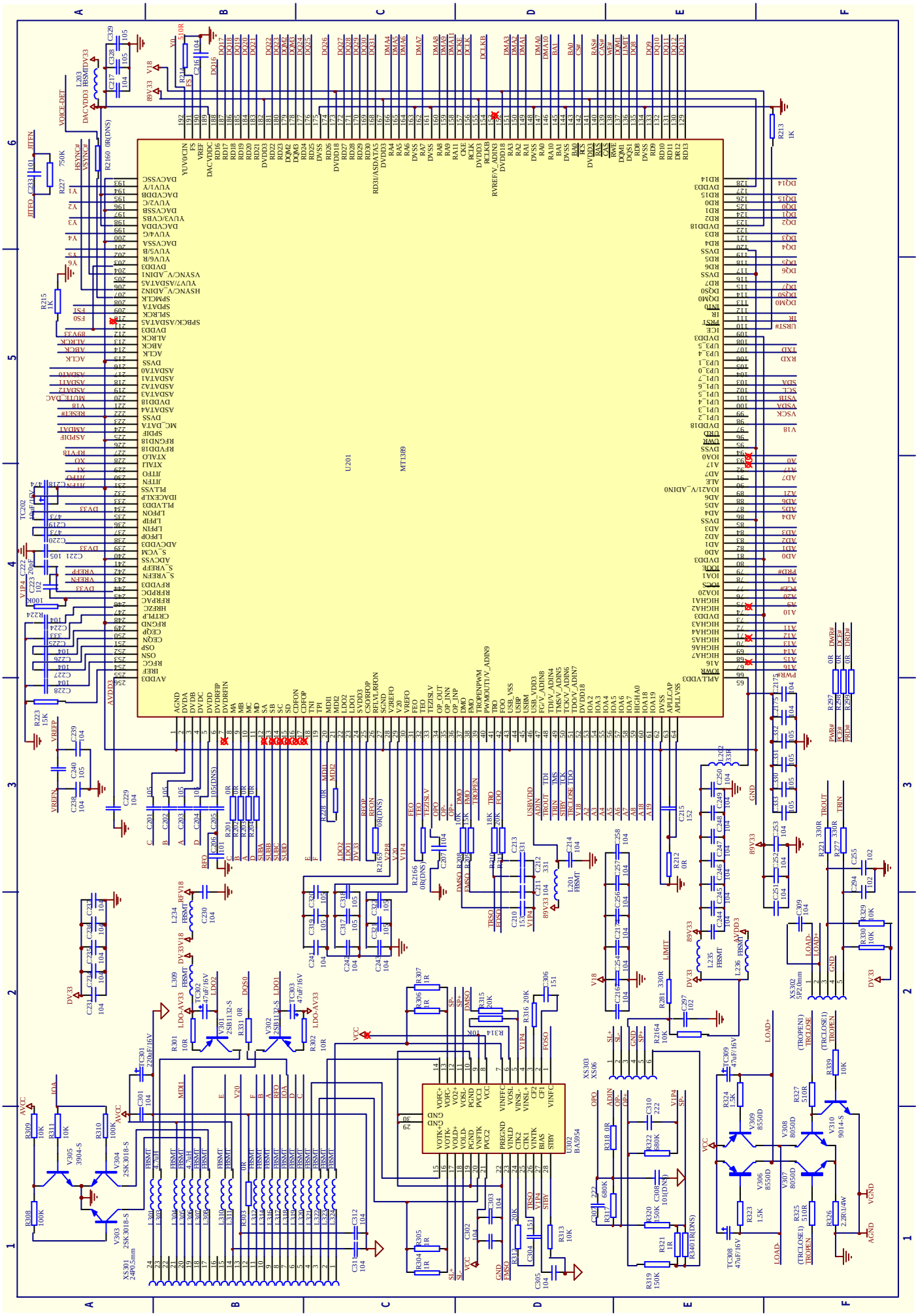

TC811
TC813
JP808
TC816
MIDs01
JP807
L901
TC803
TC804
JP806
JP817
JP801
MIDs02
TC805
JP803
TC801
JP804
TC802
TC806

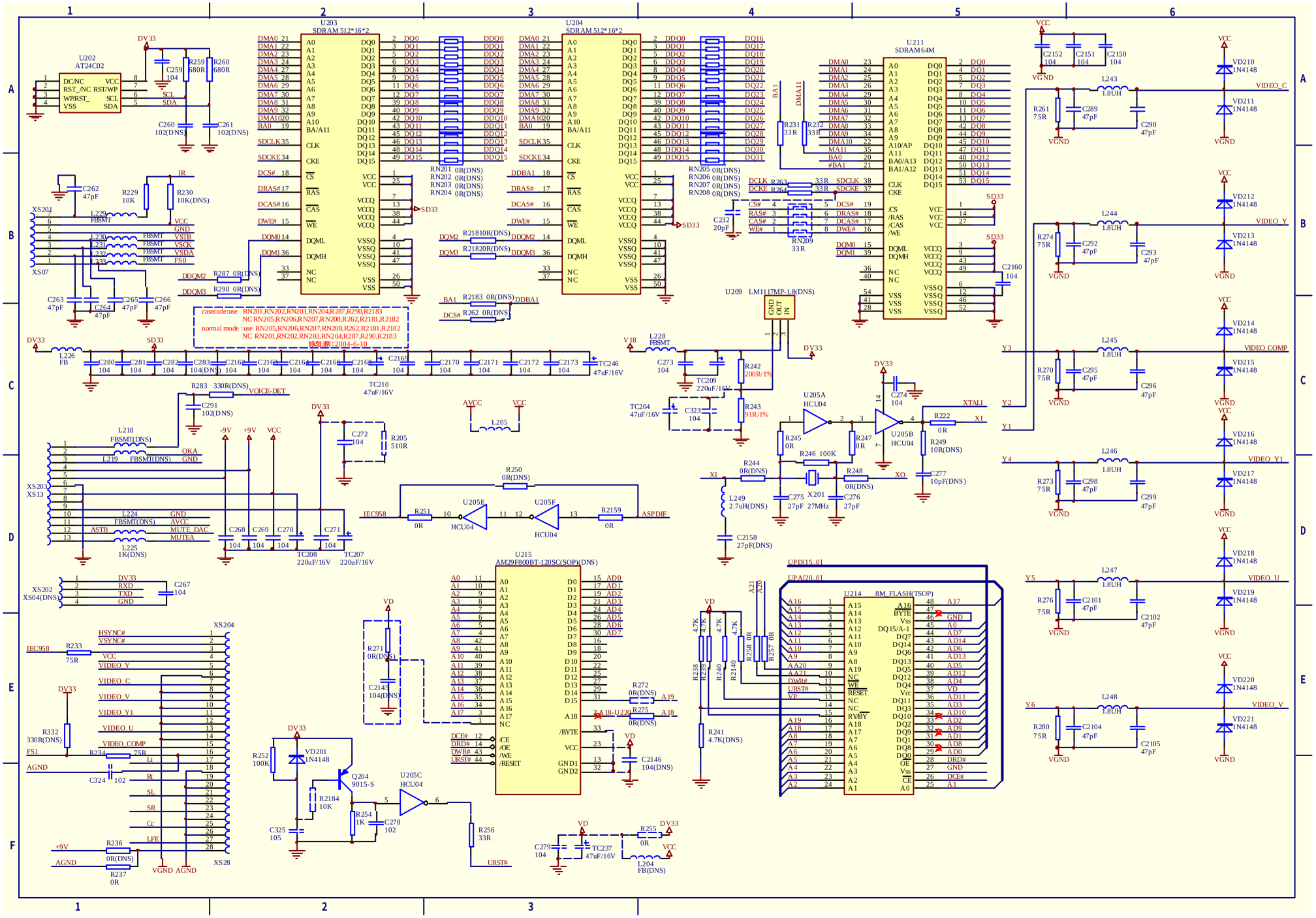
OUTPUT BOARD SCHEMATIC DIAGRAM

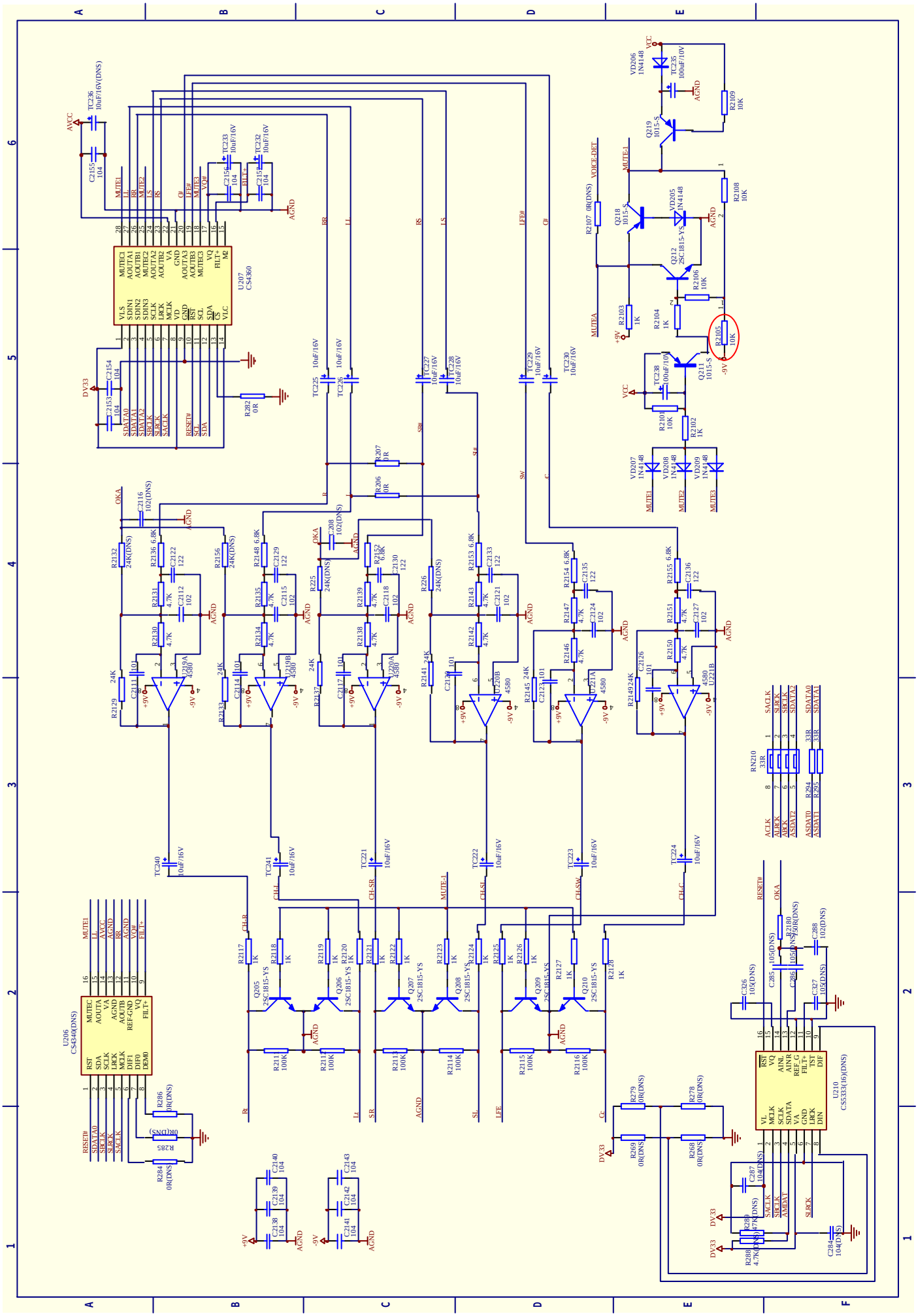


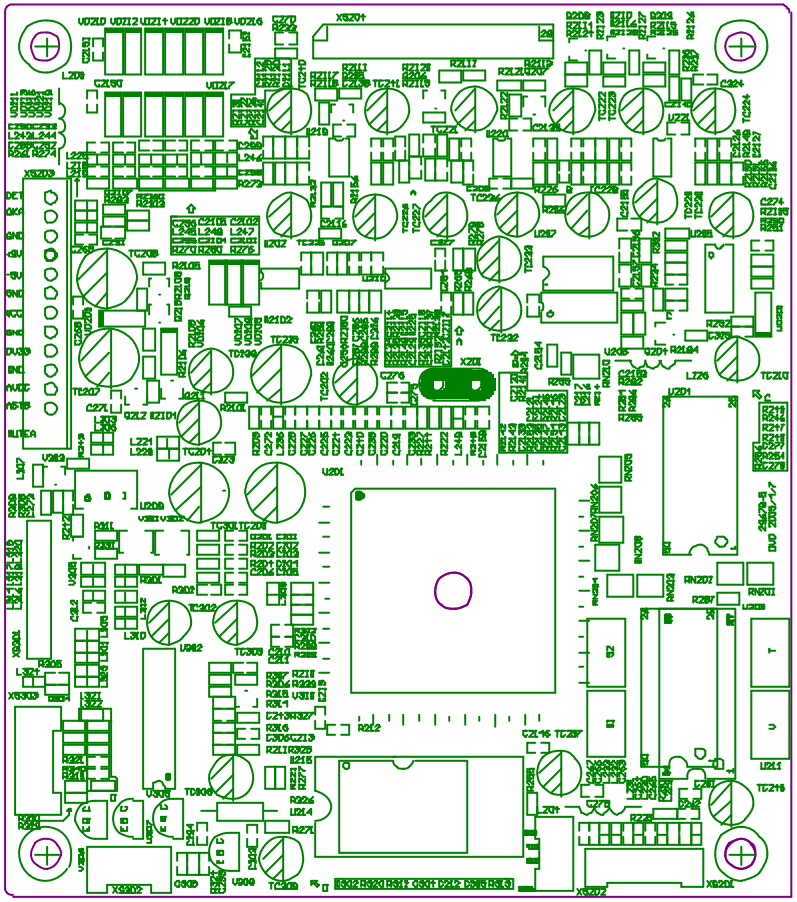
OUTPUT BOARD SCHEMATIC DIAGRAM






U202
AT24C02
U203
SDRAM 512*16*2
U204
SDRAM 512*16*2
U211
SDRAM64M
U209 LM1117MP-1.8(DNS)
U205A HCU04
U205B HCU04
U205C HCU04
U205E HCU04
U205F HCU04
U215
AM29F800BT-120SC(SOP)(DNS)
U214 8M_FLASH(TSOP)
XS07
XS201
XS202
XS203
XS204
XS28
XS13
XS504(DNS)
VD201 1N4148
Q204 9015-S
X201 27MHz
VD210 1N4148
VD211 1N4148
VD212 1N4148
VD213 1N4148
VD214 1N4148
VD215 1N4148
VD216 1N4148
VD217 1N4148
VD218 1N4148
VD219 1N4148
VD220 1N4148
VD221 1N4148
casecade:use RN201,RN202,RN203,RN204,R287,R290,R2183
NC RN205,RN206,RN207,RN208,R262,R2181,R2182
normal mode : use RN205,RN206,RN207,RN208,R262,R2181,R2182
NC RN201,RN202,RN203,RN204,R287,R290,R2183
修改时间:2004-6-10
VOICE-DET
IEC958
ASPDIF
XTALI
XO
XI
VGND
AGND
SD33
DV33
VCC
VD
IR
OKA
MUTE_DAC
MUTEA
HSYNC#
VSYNC#
VIDEO_Y
VIDEO_C
VIDEO_V
VIDEO_Y1
VIDEO_U
VIDEO_COMP
VIDEO_Y
VIDEO_C
VIDEO_COMP
VIDEO_Y1
VIDEO_U
VIDEO_V
SCL
SDA
URST#
UPD[15..0]
UPA[20..0]





10. SPARE PARTS LIST

DV514S MATERIAL LIST

1. MAIN PANEL

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	UNIT	UANTIT	LOCATION
90001	SMD RESISTOR	1/16W 0Ω ±5% 0603	PCS	1	L402
0090181	SMD RESISTOR	1/16W 100Ω ±5% 0603	PCS	1	R407
0090011	SMD RESISTOR	1/16W 470Ω ±5% 0603	PCS	1	R411
0090023	SMD RESISTOR	1/16W 10K ±5% 0603	PCS	4	R401,R402,R403,R406
0090192	SMD RESISTOR	1/16W 51K ±5% 0603	PCS	1	R405
390095	SMD MAGNETIC BEADS	FCM1608K-221T05	PCS	1	L401
0310084	SMD CAPACITOR	50V 104 +80%-20% 0603	PCS	3	C405,C406,C408
0310047	SMD CAPACITOR	50V 101 ±5% NPO 0603	PCS	6	C401,C402,C403,C407,C409, C410
0700007	SMD DIODE	1N4148	PCS	2	D401,D402
0700001	SMD DIODE	LS4148	PCS	2	D401,D402
0700002	SMD DIODE	LL4148	PCS	2	D401,D402
1631786	PCB	4975-1	PCS	1	
2360026	RECEIVING HEAD	AT138BV3 LENGTH 27mm	PCS	1	U402
0260201	CD	CD11C 16V100U±20%6×7 2.5	PCS	2	TC401,TC402
881426	IC	PT6961 SOP	PCS	1	U401
1200621	LED SCREEN	TOS-2701BG-B29	PCS	1	LED402
2120766	FLAT CABLE	7P80 2.0 2PLUG WITH L NEEDLE THE SAME DIRECTION	PCS	1	XS401
2150184	SCREEN-SHIELDED LINE	28# 215 4P SCREEN-SHIELDED WHITE, RED, YELLOW AND BLACK	PCS	1	XS402
1340003	LIGHT TOUCH RESTORE SWITCH	HORIZONTAL 6×6×1	PCS	3	K401～K403
5233018	SOFT SPONGE SPACER	10×6×16 DOUBLE-FACED HARD	PCS	2	CONNECT VFD SCREEN AND FRONT PANEL PCB
5232926	ALUMINUM FOIL STICKER	150×6×0.1 SIGNLE-SIDED WITH GLUE IN REAR SIDE	PCS	1	BETWEEN LED AND RADIATION SCREEN
5232919	SOFT SPONGE SPACER	7×7×10 DOUBLE-FACED HARD	PCS	2	CONNECT IR SENSOR AND FRONT PANEL PCB

2. AV BOARD

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	UNIT	UANTIT	LOCATION
0090181	SMD RESISTOR	1/16W 100Ω ±5% 0603	PCS	1	R702
0090002	SMD RESISTOR	1/16W 2.2Ω ±5% 0603	PCS	1	R706
0310066	SMD CAPACITOR	50V 102 ±10% 0603	PCS	13	C701~C706,C716,C723~C728
310222	SMD CAPACITOR	25V 104 ±20% X7R 0603	PCS	1	C710
0310207	SMD CAPACITOR	50V 104 ±20% X7R 0603	PCS	1	C710
0310543	SMD CAPACITOR	50V 104 ±10% X7R 0603	PCS	1	C710
0390095	SMD MAGNETIC BEADS	FCM1608K-221T05	PCS	8	L701~L704,L706,L708,L715, L716
0310085	SMD CAPACITOR	50V 20P ±5% NP0 0603	PCS	1	C713
90019	SMD RESISTOR	1/16W 4.7K ±5% 0603	PCS	1	R704
0090029	SMD RESISTOR	1/16W 47K ±5% 0603	PCS	1	R715
0090017	SMD RESISTOR	1/16W 2.2K ±5% 0603	PCS	1	R710
0310234	SMD CAPACITOR	16V 105 +80%-20% 0603	PCS	2	C707,C711
0090001	SMD RESISTOR	1/16W 0Ω ±5% 0603	PCS	8	L711,L712,C717~C722
0700007	SMD DIODE	1N4148	PCS	2	D701,D702
0700001	SMD DIODE	LS4148	PCS	2	D701,D702
0700002	SMD DIODE	LL4148	PCS	2	D701,D702
0700004	SMD VOLTAGE REGULATOR DIODE	5.1V ±5% 1/2W	PCS	4	ZD701~ZD704
1563628	PCB	7514S-0	PCS	1	
0000171	CARBON FILM RESISTOR	1/4W68Ω±5%	PCS	1	R703
0000181	CARBON FILM RESISTOR	1/4W220Ω±5%	PCS	1	R701
0000286	CARBON FILM RESISTOR	1/4W2.2K±5% SHAPED 10	PCS	1	R711
0000132	CARBON FILM RESISTOR	1/6W2.2K±5% SHAPED 7.5	PCS	2	R712,R714
436	CARBON FILM RESISTOR	1/4W2K±5% SHAPED 10	PCS	1	R709
0000133	CARBON FILM RESISTOR	1/6W4.7K±5% SHAPED 7.5	PCS	1	R705
0390057	MAGNETIC BEADS INDUCTOR	RH354708	PCS	6	L705,L707,L709,L710,L713, L714
1090045	ELECTRO-OPTIC TRANSFORMER	TX179ATW	PCS	1	JK705
1090024	ELECTRO-OPTIC TRANSFORMER	TX179AT	PCS	1	JK705
1910078	TERMINAL SOCKET	AV4-8.4-6G-3	PCS	1	JK702
1910129	TERMINAL SOCKET	SA-001-012 BLACK IRON PIECE SCREEN-SHIELDED	PCS	1	JK703
1910079	TERMINAL SOCKET	AV8-8.4-6G-3	PCS	1	JK701

1940140	CABLE SOCKET	14P 1.0mm STRAIGHT DUAL LINE PLUG	PCS	1	XS701
2100010	CONNECTION CORDS	Φ0.6 SHAPED 5mm	PCS	9	JP701,JP704,JP710~JP712,JP721~JP724
2100003	CONNECTION CORDS	Φ0.6 SHAPED 7.5mm	PCS	8	JP703,JP713~JP718,JP720
2100004	CONNECTION CORDS	Φ0.6 SHAPED 10mm	PCS	3	JP705,JP709,JP719
2100006	CONNECTION CORDS	Φ0.6 SHAPED 12.5mm	PCS	1	JP702
1860029	SCART SOCKET	SCART-01	PCS	1	JK706
0200031	PORCELAIN CAPACITOR	50V 20P ±10% NPO 5mm	PCS	1	C712
780050	TRIODE	S8050D	PCS	3	V701~V703
0000167	CARBON FILM RESISTOR	1/4W33Ω±5%	PCS	1	R708

3. OK BOARD

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	UNIT	UANTIT	LOCATION
0090181	SMD RESISTOR	1/16W 100Ω ±5% 0603	PCS	1	R619
0090009	SMD RESISTOR	1/16W 330Ω ±5% 0603	PCS	1	R616
0090012	SMD RESISTOR	1/16W 560Ω ±5% 0603	PCS	2	R603,R604
0090014	SMD RESISTOR	1/16W 1K ±5% 0603	PCS	3	R607,R608,R620
0090020	SMD RESISTOR	1/16W 5.1K ±5% 0603	PCS	3	R611,R612,R613
0090023	SMD RESISTOR	1/16W 10K ±5% 0603	PCS	7	R605,R606,R609,R610,R617,R618,R623
90026	SMD RESISTOR	1/16W 22K ±5% 0603	PCS	2	R601,R602
0000118	CARBON FILM RESISTOR	1/6W10Ω±5% SHAPED 7.5	PCS	2	R621,R622
0090034	SMD RESISTOR	1/16W 100K ±5% 0603	PCS	1	R615
0310047	SMD CAPACITOR	50V 101 ±5% NPO 0603	PCS	3	C605,C606,C607
0310072	SMD CAPACITOR	50V 103 ±10% 0603	PCS	2	C603,C604
310207	SMD CAPACITOR	50V104 ±20% 0603	PCS	2	C601,C602
0310066	SMD CAPACITOR	50V 102 ±10% 0603	PCS	1	C608
0390095	SMD MAGNETIC BEADS	FCM1608K-221T05	PCS	2	L603,L604
0390057	MAGNETIC BEADS INDUCTOR	RH354708	PCS	2	L601,L602
0260199	CD	CD11C 16V22U±20%4×7 1.5	PCS	2	TC605,TC606
0260200	CD	CD11C 16V47U±20%5×7 2	PCS	3	TC611,TC615,TC616
0260241	CD	CD11C 16V4.7U±20%4×7 1.5	PCS	5	TC601~TC604,TC613
0880185	IC	NJM4558M SOP	PCS	2	U601,U602
0880562	IC	4580 SOP	PCS	2	U601,U602
0880361	IC	4558 SOP	PCS	2	U601,U602
1563281	PCB	6975-0	PCS	1	
1940005	SOCKET	6P 2.0mm	PCS	1	XS601
1980018	MIC SOCKET	CK3-6.35-24	PCS	2	MIC601,MIC602
0700007	SMD DIODE	1N4148	PCS	3	VD601,VD602,VD603
0700001	SMD DIODE	LS4148	PCS	3	VD601,VD602,VD603
700002	SMD DIODE	LL4148	PCS	3	VD601,VD602,VD603
2100010	CONNECTION CORDS	Φ0.6 SHAPED 5mm	PCS	4	JP602,JP603,JP605,JP608
2100003	CONNECTION CORDS	Φ0.6 SHAPED 7.5mm	PCS	2	JP606,JP607
2100004	CONNECTION CORDS	Φ0.6 SHAPED 10mm	PCS	2	JP601,JP604

4. SUBSIDIART BOARD

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	UNIT	UANTIT	LOCATION
1340003	LIGHT TOUCH RESTORE SWITCH	HORIZONTAL 6×6×1	PCS	1	K901
1940024	SOCKET	5P 2.0mm	PCS	1	XS901
0620002	RADIATION DIODE	Φ3 RED	PCS	1	LED901
1631740	PCB	9975-0	PCS	1	

1. POWER BOARD

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	UNIT	UANTIT	LOCATION
2100010	CONNECTION CORDS	Φ0.6 SHAPED 5mm	PCS	4	JP502,JP510,JP519,JP520
2100003	CONNECTION CORDS	Φ0.6 SHAPED 7.5mm	PCS	5	JP501,JP509,JP514,JP516,JP518
2100004	CONNECTION CORDS	Φ0.6 SHAPED 10mm	PCS	1	JP511
0000273	CARBON FILM RESISTOR	1/4W33Ω±5% SHAPED 10	PCS	1	R505
0000362	CARBON FILM RESISTOR	1/4W220Ω±5% SHAPED 10	PCS	1	R515
0000278	CARBON FILM RESISTOR	1/4W330Ω±5% SHAPED 10	PCS	1	R506
0000279	CARBON FILM RESISTOR	1/4W470Ω±5% SHAPED 10	PCS	1	R514
0000284	CARBON FILM RESISTOR	1/4W1.5K±5% SHAPED 10	PCS	1	R511
0000461	CARBON FILM RESISTOR	1/4W9.1K±5% SHAPED 10	PCS	1	R512
0000283	CARBON FILM RESISTOR	1/4W1K±5% SHAPED 10	PCS	1	R502
0010115	METAL FILM RESISTOR	1/4W3.3K±1% SHAPED 10	PCS	1	R508

10064	METAL FILM RESISTOR	1/4W10K±1% SHAPED 10	PCS	1	R509
0010159	METAL OXIDE FILM RESISTOR	2W39K±5% SHAPED FLAT 15×7	PCS	1	R503
0070001	HIGH VOLTAGE RESISTOR	1/2W680K±5%	PCS	1	R501
0200136	PORCELAIN CAPACITOR	50V 473 ±20% 5mm	PCS	1	C506
0200138	PORCELAIN CAPACITOR	50V 104 ±20% 5mm	PCS	6	C504,C508,C510~C512,C515
200268	CERAMIC CAPACITOR	CT81 250VAC221±10% 10mm	PCS	2	BC503,BC505
0200267	CERAMIC CAPACITOR	CT81 250VAC221±20% 10mm	PCS	2	BC503,BC505
0200223	PORCELAIN CAPACITOR	1000V 101 +80%-20% 7.5mm	PCS	1	C503
0200228	PORCELAIN CAPACITOR	1000V 101 ±10% 7.5mm	PCS	1	C503
0200224	PORCELAIN CAPACITOR	1000V 103 +80%-20% 7.5mm	PCS	1	C502
0210116	ANTI-DISTURBANCE CAPACITOR	MKP61 X2 275VAC 104±20%15	PCS	1	BC501
0210066	TERYLENE CAPACITOR	275V 104 ±20% 15mm	PCS	1	BC501
0210070	TERYLENE CAPACITOR	275V 104 ±10% 15mm	PCS	1	BC501
0260557	CD	CD11T 16V100u±20%6×12 2.5	PCS	1	TC507
0260558	CD	CD11T 25V470u±20%10×16 5	PCS	2	TC503,TC504
260559	CD	CD11T 50V47u±20%6×12 2.5	PCS	2	TC502,TC512
0260560	CD	CD11T 10V1000u±20%8×16 3.5	PCS	4	TC505,TC506,TC510,TC514
0260605	CD	KM 400V47U±20%16×25 7.5	PCS	1	TC501
0410010	CHOKE COIL	VERTICAL 10UH 1A 5mm	PCS	2	L505,L509
0410011	CHOKE COIL	VERTICAL 10UH 2A 5mm	PCS	2	L507,L508
570013	DIODE	HER105	PCS	3	D506,508,D511
0570018	DIODE	HER303 SHAPED R 17.5×8mm	PCS	2	D510, D513
0570014	DIODE	HER107	PCS	1	D505
0570005	DIODE	1N4007	PCS	4	D501~D504
0580006	VOLTAGE REGULATOR DIODE	5.1V ±5% 1/2W	PCS	1	ZD501
0580032	VOLTAGE REGULATOR DIODE	10V ±5% 1/2W	PCS	1	ZD502
0881933	IC	VIPER22A DIP8	PCS	1	U501
0880553	IC	LM431ACZ TO-92	PCS	1	U503
0880581	IC	TL431C TO-226AA(LP)	PCS	1	U503
880800	IC	431L TO-92	PCS	1	U503
0882041	IC	MIK431C TO-92	PCS	1	U503
0390057	MAGNETIC BEADS INDUCTOR	RH354708	PCS	1	L503
1080011	PHOTOELECTRIC COUPLER	HS817	PCS	1	U502
1080006	PHOTOELECTRIC COUPLER	PC817	PCS	1	U502
780049	TRIODE	S8550D	PCS	1	Q501
1000022	POWER GRID FILTER	JLB1153 33uH +∞-0%	PCS	1	L501
0460422	SWITCHING POWER TRANSFORMER	BCK-28-519S	PCS	1	T501
1940077	SOCKET	11P 2.0mm	PCS	1	CN502
1940045	SOCKET	2P 8.0mm 2#	PCS	1	BCN501
1940023	SOCKET	7P 2.0mm	PCS	1	CN501
2300021	FUSE	T1.6AL 250V	PCS	1	F501
2300028	FUSE	T1.6AL 250V	PCS	1	F502
3870115	GROUND CHIP OF POWER BOARD	AB903	PCS	2	G501,G505
1563812	PCB	5977K-4	PCS	1	

5. DECODE BOARD

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	UNIT	UANTIT	LOCATION
0090001	SMD RESISTOR	1/16W 0Ω ±5% 0603	PCS	25	R201~R204,R212,R222,R228, R236,R245,R247,R251,R255, R257,R258,R282,R297~R299, R303,R318,R331,R2159,R234 ,R268,R279
0090006	SMD RESISTOR	1/16W 75Ω ±5% 0603	PCS	7	R233,R261,R270,R273,R274, R276,R280
0090272	SMD RESISTOR	1/16W1Ω ±5% 0603	PCS	5	R304~R307,R321
90003	SMD RESISTOR	1/16W 10Ω ±5% 0603	PCS	2	R301,R302
0090005	SMD RESISTOR	1/16W 33Ω ±5% 0603	PCS	8	R231,R232,R256,R263,R264, R294,R295,L202
0090232	SMD RESISTOR	1/16W 150Ω ±5% 0603	PCS	1	R2180

0090009	SMD RESISTOR	1/16W 330Ω ±5% 0603	PCS	3	R221,R277,R281
0090013	SMD RESISTOR	1/16W 680Ω ±5% 0603	PCS	2	R259,R260
0090014	SMD RESISTOR	1/16W 1K ±5% 0603	PCS	18	R213,R215,R254,R2102~R2104,R2117~R2128
0090016	SMD RESISTOR	1/16W 1.5K ±5% 0603	PCS	2	R323,R324
0090249	SMD RESISTOR	1/16W 510Ω ±5% 0603	PCS	4	R205,R214,R325,R327
0090019	SMD RESISTOR	1/16W 4.7K ±5% 0603	PCS	16	R238~R240,R2130,R2131,R2134,R2135,R2138~R2140,R2142,R2143,R2146,R2147,R2150,R2151
90021	SMD RESISTOR	1/16W 6.8K ±5% 0603	PCS	6	R2136,R2148,R2152~R2155
0090023	SMD RESISTOR	1/16W 10K ±5% 0603	PCS	16	R208,R229,R309,R311,R313,R314,R329,R330,R339,R2101,R2106,R2108,R2109,R2164,R2184,R2105
0090024	SMD RESISTOR	1/16W 15K ±5% 0603	PCS	2	R209,R223
0090025	SMD RESISTOR	1/16W 20K ±5% 0603	PCS	4	R211,R312,R315,R316
0090255	SMD RESISTOR	1/16W24K±5% 0603	PCS	6	R2129,R2133,R2137,R2141,R2145,R2149
90188	SMD RESISTOR	1/16W 18K ±5% 0603	PCS	1	R210
0090029	SMD RESISTOR	1/16W 47K ±5% 0603	PCS	1	R289
0090197	SMD RESISTOR	1/16W 150K ±5% 0603	PCS	2	R319,R320
0090211	SMD RESISTOR	1/16W 680K ±5% 0603	PCS	2	R317,R322
0090609	PRECISION SMD RESISTOR	1/16W 100Ω ±1% 0603	PCS	1	R243
0090626	PRECISION SMD RESISTOR	1/16W 200Ω±1% 0603	PCS	1	R242
90319	PRECISION SMD RESISTOR	1/16W 750K ±1% 0603	PCS	1	R227
0090034	SMD RESISTOR	1/16W 100K ±5% 0603	PCS	11	R224,R246,R252,R308,R310,R2111~R2116
0100019	SMD RESISTOR NETWORKS	1/16W33Ω ±5% 8P	PCS	2	RN209,RN210
0003759	CARBON FILM RESISTOR	1/4W2.2Ω±5%	PCS	1	R326
2604379	CD	CD11 16V10U±20%5×11C5	PCS	15	TC202,TC221~TC230,TC232,TC233,TC240,TC241
2601819	CD	CD11 16V220U±20%6×12 C5	PCS	4	TC207~TC209,TC301
2600029	CD	CD11 16V47U±20%5×11 C5	PCS	8	TC204,TC210,TC237,TC246,TC302,TC303,TC308,TC309
2601889	CD	CD11 16V100U±20%6×12 C5	PCS	2	TC235,TC238
0310085	SMD CAPACITOR	50V 20P ±5% NPO 0603	PCS	2	C222,C232
0310190	SMD CAPACITOR	50V 27P ±5% NPO 0603	PCS	2	C275,C276
0310045	SMD CAPACITOR	50V 47P ±5% NPO 0603	PCS	17	C262~C266,C289,C290,C292,C293,C295,C296,C298,C299,C2101,C2102,C2104,C2105
0310047	SMD CAPACITOR	50V 101 ±5% NPO 0603	PCS	8	C206,C233,C2111,C2114,C2117,C2120,C2123,C2126
0310051	SMD CAPACITOR	50V 331 ±5% NPO 0603	PCS	2	C212,C213
0310048	SMD CAPACITOR	50V 151 ±5% NPO 0603	PCS	2	C304,C306
0310084	SMD CAPACITOR	50V 104 +80%-20% 0603	PCS	86	C207,C211,C214,C216,C217,C224,C226~C231,C234~C239,C241~C254,C256~C259,C267~C274,C279~C282,C301~C303,C305,C309,C311,C312,C323,C2138~C2143,C2150~C2157,C2160,C2162~C2164,C2166~C2175,C284,C287
0310058	SMD CAPACITOR	25V 104 +80%-20% 0603	PCS	86	C207,C211,C214,C216,C217,C224,C226~C231,C234~C239,C241~C254,C256~C259,C267~C274,C279~C282,C301~C303,C305,C309,C311,C312,C323,C2138~C2143,C2150~C2157,C2160,C2162~C2164,C2166~C2175,C284,C287

0310234	SMD CAPACITOR	16V 105 +80%-20% 0603	PCS	23	C201~C204,C221,C240,C317~C322,C325,C328~C333,C326,C327,C285,C286
0310066	SMD CAPACITOR	50V 102 ±10% 0603	PCS	12	C223,C255,C278,C294,C297,C2112,C2115,C2118,C2121,C2124,C2127,C288
0310231	SMD CAPACITOR	50V 122 ±10% 0603	PCS	6	C2122,C2129,C2130,C2133,C2135,C2136
0310067	SMD CAPACITOR	50V 152 ±10% 0603	PCS	1	C215
0310068	SMD CAPACITOR	50V 222 ±10% 0603	PCS	2	C307,C310
0310201	SMD CAPACITOR	50V 153 ±10% 0603	PCS	1	C210
0310055	SMD CAPACITOR	16V 333 ±10% 0603	PCS	1	C225
310056	SMD CAPACITOR	16V 473 ±10% 0603	PCS	2	C219,C220
0310362	SMD CAPACITOR	16V474 +80%-20% 0603	PCS	1	C218
390355	SMD INDUCTOR	4.7UH ±10% 1608	PCS	2	L303,L306
0390096	SMD INDUCTOR	1.8UH ±10% 1608	PCS	6	L243~L248
3900579	MAGNETIC BEADS INDUCTOR	RH354708	PCS	1	L226
0390095	SMD MAGNETIC BEADS	FCM1608K-221T05	PCS	31	L201,L203,L228~L236,L301,L304,L305,L307~L312,L314,L316~L324,L219
0960020	CRYSTAL OSCILLATOR	27.00MHz 49-S	PCS	1	X201
1632287	PCB	2967B-5	PCS	1	
0700007	SMD DIODE	1N4148	PCS	18	VD201,VD205~VD221
0700001	SMD DIODE	LS4148	PCS	18	VD201,VD205~VD221
0700002	SMD DIODE	LL4148	PCS	18	VD201,VD205~VD221
7800509	TRIODE	S8050D	PCS	2	V307,V308
7800499	TRIODE	S8550D	PCS	2	V306,V309
0780062	SMD TRIODE	9014C	PCS	1	V310
0780063	SMD TRIODE	9015C	PCS	1	Q204
0780197	SMD TRIODE	C1815	PCS	7	Q205~Q210,Q212
0780198	SMD TRIODE	2SA1015	PCS	3	Q211,Q218,Q219
0780040	SMD TRIODE	3904 SOT-23	PCS	1	V305
0780193	SMD TRIODE	2SK3018	PCS	2	V303,V304
780115	SMD TRIODE	2SB1132	PCS	2	V301,V302
0880185	IC	NJM4558M SOP	PCS	3	U219,U220,U221
0880562	IC	4580 SOP	PCS	3	U219,U220,U221
0880361	IC	4558 SOP	PCS	3	U219,U220,U221
0880322	IC	MM74HCU04M SOP	PCS	1	U205
880513	IC	HCU04 SOP	PCS	1	U205
0881415	IC	HY57V641620HGT-7 TSOP	PCS	1	U211
0881872	IC	KSV464P4JA-70 TSOP	PCS	1	U211
0881182	IC	LM1117MP-ADJ SOT-223	PCS	1	U209
0881057	IC	CS4360 SSOP	PCS	1	U207
0881059	IC	CS5333 SSOP	PCS	1	U210
0881031	IC	24C02N SOP	PCS	1	U202
0882257	IC	MT1389FE/C (C VERSION) QFP	PCS	1	U201
0881378	IC	BA5954FP HSOP	PCS	1	U302
1940140	CABLE SOCKET	14P 1.0mm STRAIGHT DUAL LINE PLUG	PCS	1	XS204
1940024	SOCKET	5P 2.0mm	PCS	1	XS302
1940005	SOCKET	6P 2.0mm	PCS	1	XS303
1940171	SOCKET	13P 2.5mm	PCS	1	XS203
1940023	SOCKET	7P 2.0mm	PCS	1	XS201
1940094	CABLE SOCKET	24P 0.5mm SMD WITH CLASP	PCS	1	XS301